DOCUMENT RESUME

ED 327 992 EC 233 202

TITLE Policy Analysis Series. Issues Related to the Welsch Consent Decree. Volumes I and II.
INSTITUTION Minnesota Governor's Planning Council on Developmental Disabilities, St. Paul.; Minnesota State Planning Agency, St. Paul.
PUB DATE 82
NOTE 514p.; Volumes I and II were combined for this ERIC document. Papers in Volume I are listed as No. 1-11; Volume II contains No. 12-21.
PUB TYPE Reports - Descriptive (141) -- Statistical Data (110)

EDRS PRICE MF02/PC21 Plus Postage.
DESCRIPTORS Adults; Agency Cooperation; Behavior Problems; Community Programs; Cost Effectiveness; Court Litigation; *Deinstitutionalization (of Disabled); *Employment Programs; Group Homes; Institutionalized Persons; Legal Responsibility; *Mental Retardation; Policy Formation; Program Administration; Program Evaluation; Residential Care; *Residential Institutions; Residential Programs
IDENTIFIERS *Intermediate Care Facilities; *Minnesota; Property Values; Welsch v Noot

ABSTRACT

This two-volume compilation of 21 papers discusses issues stemming from the Welsch versus Likins suit (1974). The suit led to the 1980 Welsch-Noot consent decree requiring the State of Minnesota to reduce the overall population of mentally retarded persons residing in state institutions by nearly one-third over 6 years. The 11 papers in Volume I are: "Taxonomy of Issues Surrounding Implementation of the Welsch versus Noot Decree"; "The Size of Community Residential Facilities: Current Guidelines and Implications for Planning"; "Interagency Cooperation: The Underlying Concepts of Trust, Incentives, Barriers, and Forms of Linkage"; "Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems"; "Admissions/Readmissions to State Hospitals, September 1, 1980 to May 31, 1981: The Behavior Problem Issue"; "The Financial Status of Minnesota Developmental Achievement Centers: 1980-1982"; "The Program Status of Minnesota Developmental Achievement Centers: 1980-1982"; "The Client Status of Minnesota Developmental Achievement Centers: 1980-1982"; "Summary of Issues, Programs and Clients in Minnesota Developmental Achievement Centers: 1980-1982"; "Admissions/Readmissions to State Hospitals, June 1, 1981 to December 31, 1981: The Behavior Problem Issue"; "An Analysis of Minnesota Property Values of Community Intermediate Care Facilities for Mentally Retarded (ICF-MRs)." The 10 papers in Volume II are: "Analysis of Nonformal Training for Personnel Working in the Field of Developmental Disabilities in Minnesota: 1981-1982"; "A Survey of Training Programs in Developmental Disabilities in Postsecondary Schools in Minnesota and Adjacent States"; "Training Needs as Perceived by Residential and Day Program Administrators and Staff"; "Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems: 1980"; "A Statewide Summary of Sheltered Employment Programs"; "The Financial, Client, and Program Status of Minnesota Developmental Achievement Centers: 1982"; "The Minnesota Family Subsidy Program: Its Effect on Families with a Developmentally Disabled Child"; "Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems: 1981"; "Respite Care: A Supportive and Preventive Service for Families"; and "Summary and Analysis of Minnesota Developmental Disabilities Respite Care Demonstration Projects (1981-1983)." Several of the papers in Volume II update the papers contained in Volume I. Volume I contains 166 references; Volume II has 216 references. (PB)

ED327992

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

POLICY ANALYSIS SERIES

ISSUES RELATED TO THE WELSCH CONSENT DECREE

Volume I and Volume II

MINNESOTA GOVERNOR'S PLANNING COUNCIL
ON DEVELOPMENTAL DISABILITIES

DEVELOPMENTAL DISABILITIES PLANNING
MINNESOTA STATE PLANNING AGENCY

2

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Colleen Wieck
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

EC 233 202

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 1

TAXONOMY OF ISSUES SURROUNDING IMPLEMENTATION OF THE WELSCH V. NOOT CONSENT DECREE

Braddock (1980) has observed that the implementation of a court decree is an "expensive, complex, and slow process" because court mandates do not necessarily mesh with an existing system. Usually the human services system has an extremely large number of actors, several different decision points, and an inherent inertia to avoid change. The complex task of "intermeshing" the Welsch v. Noot decree with the existing Minnesota system will require an understanding of the issues involved in deinstitutionalization and the process by which needed system changes can be effectively accomplished.

The purpose of this paper is to outline the planning issues and problems related to decree implementation, and to clarify where responsibility lies for specific mandated activities. Four major areas of activity in the implementation process will be discussed: (1) deinstitutionalization planning on federal, state and county governmental levels, (2) finalizing deinstitutionalization, (3) administration, licensing, monitoring, and regulation, and (4) planning on the individual level.

Within each of these areas, several important issues are raised that merit extensive discussion and action. For example, deinstitutionalization planning on various governmental levels raises questions regarding the need for interagency coordination on each level and between levels of government as well as with non-governmental agencies. In financing there are many facets to the questions of how to match fiscal incentives with the policy goals and intent of the Decree, and how to overcome the institutional bias of governmental funding. Ensuring adequate funding bases for a range of alternative residential, support services, and day programs requires a coordinated effort by a range of policymakers and service providers. In establishing and enforcing guidelines for controlling the quantity and quality of care, such issues as duplication of regulation and monitoring activities, the location and array of services, and future growth of the system must be addressed. Finally, on the individual level, issues to be dealt with include assessment, program planning, treatment, and discharge planning.

I. PLANNING FOR DEINSTITUTIONALIZATION BY GOVERNMENT LEVEL

A. FEDERAL Directives and Responsibilities

1. Recent executive, congressional, and judicial messages about deinstitutionalization:
    a. Executive: Executive Order 11776, issued by Richard Nixon in 1974, reaffirmed the 1971 national goal of returning one-third of 200,000 institutionalized mentally retarded residents to community settings.

b. Congressional: P.L. 94-103, the Developmental Disabilities Assistance and Bill of Rights Act, was passed by Congress in 1975 and amended in 1978 (P.L. 95-602).

c. Judicial: The April, 1981 Supreme Court decision in the Halderman v. Pennhurst State Hospital case held that the 1975 D. D. Act did not secure a constitutional right to appropriate habilitation for mentally retarded people or require the states to provide such habilitation as a condition to receiving federal funds. This decision was narrowly based on statutory interpretation. The Third Circuit Court of Appeals is considering remaining statutory and constitutional issues in the case, and the Supreme Court is scheduled to hear the Romeo v. Youngberg case, which will be a constitutional test of the right to habilitation in the least restrictive environment in Fall 1981.

2. Fiscal incentives and mechanisms for implementing deinstitutionalization currently favor institutional care over community care alternatives.

a. Will increased money from the federal government for community alternatives provide an incentive for out of home placement thus working at cross purposes to depopulating institutions?

b. What is the effect on deinstitutionalization of substantial changes in federal social policy, including block grant funding, reductions in spending, and changes in eligibility in federal programs such as Medicaid and Title XX?

(1) Developmental Disabilities and Vocational Rehabilitation have been reauthorized as categorical programs without cuts in authorization levels.

(2) The federal share of Medicaid funding will be reduced by 3-4.5% in 1982-84. A special waiver provision in the current bill will allow states to place non-medical services (except room and board costs) under Medicaid for high risk persons to prevent institutionalization.

(3) Title XX current funding will be reduced by 17.2% to \$2.4 billion in 1982, \$2.45 billion in 1983, and \$2.5 billion in 1984. This reduction will particularly affect day programs in Minnesota.

3. There is a lack of interagency coordination at the federal level resulting in piecemeal approaches to community-based programs. The GAO reported in 1977 that there were "135 programs administered by 11 major departments at the federal level" concerned with deinstitutionalization. Will this fragmented approach continue?

B. STATE Agency Responsibilities

1. Department of Public Welfare current responsibilities include planning, coordinating, setting policies and standards, licensing, monitoring, funding, development of administrative rules, providing technical assistance, and providing direct services through nine institutions and two state-operated nursing homes. The consent decree further specifies the following responsibilities in order to implement the decree:

   a. Training of state hospital staff with specific topics mentioned in the decree;
   b. Consultation services to community providers;
   c. Monitoring of assessment and discharge planning;
   d. Technical assistance to counties and facility developers;
   e. Licensure of DACs and community residential facilities;
   f. Planning, development, and support of necessary legislation;
   g. Determination of the future role of state hospitals including a phase out schedule for use of buildings as well as an employee protection plan including retraining. The continued roles of state hospitals should focus on outreach work, respite care, crisis intervention, and other activities.

2. Department of Education is currently charged with providing a free, appropriate education for handicapped children in the least restrictive environment consistent with state and federal regulations. The Welsch decree implies:
   a. Maintain and provide accurate counts of handicapped children and youth by disability and by age. This data will be used for planning purposes in determining demand for adult services.
   b. Provide technical assistance to local districts on how to serve severely/profoundly retarded, multiply handicapped children.
   c. Preventing admissions of children to state institutions implies school districts should assume prevention/intervention strategies.

3. Department of Economic Security - Division of Vocational Rehabilitation--responsibilities include employment/independent living training, sheltered workshop training, and client evaluation/case planning.
   a. The court decree specifically mentions 300 additional sheltered workshop slots, but there is some concern for the allocation of those slots given the current waiting lists.
   b. There is a need for an unduplicated count of people who need sheltered workshop placements.

4. Department of Health - handles several functions including facility licensure, quality assurance reviews, complaint handling, medicaid certification, and certificate of need.
   a. There is no mention of the Health Department in the consent decree, although there is an implication of increased workload for each of these areas.

5. State Planning Agency has two units that are directly concerned with deinstitutionalization activities.

   a. The Health Planning Unit provides direction and technical assistance to the Health Systems Agencies which perform 1122 reviews. The Health Planning Unit is currently drafting IFC-MR guidelines for facilities serving developmentally disabled people.
   b. The Developmental Disabilities Unit is responsible for planning, coordination and evaluation of services for developmentally disabled people through intergovernmental and interagency activities. The regional coordinators assist counties and HSAs with planning activities related to community program development. Finally, there is a need for ongoing assessment of individual needs and services in cooperation with several existing data banks.

c. Neither unit is specifically mentioned in the consent decree, but will be working together with the Human Resources Unit to staff the Governor's Task Force on Implementation of the decree.

C. STATE INTERAGENCY Cooperation and Collaboration.

1. Never before has there been a need for written interagency agreements which clarify responsibilities during a period of declining resources. In particular, there must be greater clarity of roles and responsibilities when children and youth are moved through the system of services (e.g., placement of individuals in residential treatment facilities) which cuts across responsibilities of the State Department of Education, the State Department of Public Welfare, the Department of Corrections, as well as in the areas of assessment and diagnosis (Department of Public Welfare, Department of Health, and State Department of Education).

2. In addition to interagency agreements, there is a need for "policy linkages" that combine the statutory and regulatory functions with policy intent. For example, there are several conflicting statutes and regulations related to the size of community residential facilities and little effort to coordinate these guidelines with the policy of deinstitutionalization and concomitant principles of normalization, least restrictive environments, and developmental models.

D. COUNTY Responsibilities are defined in DPW Rule 185, Request Bulletin 81-53, Minnesota Statutes, and the Consent Decree:

1. Securing appropriate residential placements for the residents who will be moving from state hospitals. (Consent Decree)

2. Case management services including case finding, diagnosis, assessment of need, development of individual service plans, arrangement and provision of services needed, evaluation of individual service plans, and submission of annual report on wards. (DPW Rule 185, Consent Decree)

3. Planning, including development and submission of CSSA plan biennially, that includes:
   a. ensuring opportunity for involvement of local social service agency, developmental disabilities, state hospitals, service providers, and advocates;
   b. taking initiative in planning and development of services not available;
   c. identification of services available inside and outside geographic area for its mentally retarded population;
   d. identification of priority need of services not available currently;
   e. provision and arrangement for services within CSSA grant;
   f. submission of a letter of recommendation regarding new or changing services. (DPW Rule 185)

4. Evaluation of the county social services program on the basis of measurable program objectives. Submit annual report on effectiveness of CSSA program. (MS 256 E.11)

5. Payment for services and audit trail regarding program costs and administrative costs. (DPW Rule 185, MS 252.21, MS 245.61, and MS 256 E.09)

6. Resource development and provision of services including community residential facilities, developmental achievement, transportation, mental health, and other services. (DPW Rule 185)

7. County planning requirements as related to Request Bulletin 81-53. (Request Bulletin 81-53)

8. Crossover patterns of utilization from one county to another for services:
   a. possibility or need to charge for case management fees;
   b. concentration of services in metropolitan area;
   c. possible opportunities for two or more counties to plan intercounty arrangements for serving special populations. (DPW Rule 185)

E. Interplay of OTHER GOVERNMENT AGENCIES including the Governor's Office leadership efforts and the legislative approriations committee. There is a need for a state plan to address and coordinate executive activities.

F. Interplay of ADVOCACY GROUPS, PLAINTIFFS, AND PROVIDER ORGANIZATIONS in the legislative process.

II. FINANCING DEINSTITUTIONALIZATION

A. Funding base for state hospitals.

B. Funding base for community based residential facilities.

C. Funding base for day program services--education, developmental achievement, work activity, and sheltered workshops.

D. Funding base for support services.

E. Fiscal incentives must match the policy goals and intent of the Welsch v. Noot consent decree.

F. Cost models and projections including:

1. Calculating the impact of Reagan's budget proposals on state and counties;

2. Calculating the double funding bulge of two service systems (community and institutions) during the period of implementation (1981-87);

3. Calculating cost function analysis to determine the multiple factors affecting variations in per diems.

G. Can the current system of funding be refashioned to allow money to follow the individual? If an individualized assessment-prescription-voucher method is used, what preparatory steps must be taken to effectively implement this approach?

III. ADMINISTRATION, LICENSING, REGULATING, AND MONITORING ISSUES

A. Duplication of regulations and monitoring activities regarding ICF/MR facilities from several different agencies including DPW, Department of Health, etc.

1. There is a need for some effort to eliminate duplication and monitoring of the number of reviews performed by separate agencies.

2. Licensors and monitors must be adequate in numbers, training, and have sufficient supervision to assure that quality exists in both state hospitals and community services.

B. A full and adequate array of services must be available in the community including: transportation, health, leisure/recreation, education, prevention/intervention, day programs, vocational training, employment, respite care, advocacy and others.

C. Guidelines should focus on size, location, and concentration of residential facilities to prevent tendency toward either isolation or overconcentration of services.

D. What is the future of system growth in Minnesota, and is there a danger in a small number of residential facility operators monopolizing services?

E. Strategies for minimizing community resistance including changes in public attitudes, special covenants, property value studies, and Supreme Court testing of the current zoning law.

F. Will minimum standards or certification of training of direct care staff in community based programs be required in the future? If so, what impact will these standards have on per diems, beginning salary levels, and turnover?

G. There is a need to examine both rate setting and "pass through" methods currently used by the Department of Public Welfare to assure equity and cost containment.

H. There appears to be a need for a formal evaluation system (meta-evaluation) to monitor effectiveness of the existing evaluation reports completed by the State Department of Education, the State Department of Public Welfare, the Office of Health Facility Complaints (Department of Health). In addition, some determination should be made regarding the consequences of deficiencies.

I. Defining inputs by regulatory measures does not insure appropriate outputs/outcomes. There should be more attention paid to outcome measures at the individual level and systems level.

J. With movement of multiply-handicapped residents from state hospitals to community services, attention must be paid to converting existing buildings into barrier free environments.

IV. PLANNING AT THE INDIVIDUAL LEVEL

A. Individual Assessment Issues

1. Adequacy of screening, diagnosis, and assessment of individuals in state hospitals, community residential facilities, developmental achievement centers, and public schools.

2. Limitations of state tracking systems for individuals (e.g., response rate, reliability, and validity measures).

B. Individual Program Plans (IPPs)

1. Face validity of IPPs in terms of items included and completeness of forms.

2. Content validity of IPPs in terms of assuring that the program matches individual needs and assessment of needs.

C. Discharge Planning

1. Adequacy of discharge planning process and involvement of resident and family.

2. Do discharge plans specify appropriate residential day programs, and support services needed by client rather than reflect only the available services?

3. Is the 60-day follow-up or post placement assessment a benchmark of appropriateness of placement?

D. There is constant concern for active treatment in all types of residential and day programs.

1. How can the gaps in information dissemination about curriculum materials and behavioral technologies be closed?

E. Planning for special populations.

1. Medically fragile people.

2. People with behavior problems.

3. Severely/profoundly retarded people with multiple handicaps.

F. Placements.

1. Reduction of inappropriate placements to nursing homes, etc.

2. Post institutional placements--will mortality rates increase for residents who have lived most of their lives in institutions?

G. The role of the court appointed monitor.

  1. Monitoring psychotropic drug use in state hospitals.

  2. Monitoring the use of mechanical restraints, separation, and seclusion.

  3. The lack of monitoring for these practices in community settings.

H. Reduction of admission and readmission rates.

  1. Examine appropriateness of court commitments and provide information to county judges about the Welsch v. Noot Consent terms.

  2. Intervention methods for preventing admissions/readmissions due to behavior problems.

BIBLIOGRAPHY

Braddock, E., Report on Deinstitutionalization: 1980, Chicago, Illinois Institute for Developmental Disabilities, 1979.

General Accounting Office, Returning the Mentally Disabled to the Community, Government Printing Office, 1977.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Bruce Balow, Ph.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #1: Taxonomy of Issues Surrounding Implementation of the Welsch v. Noot Consent Decree. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, August 1981.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 2

THE SIZE OF COMMUNITY RESIDENTIAL FACILITIES: CURRENT GUIDELINES AND IMPLICATIONS FOR PLANNING

I. INTRODUCTION

Welsch v. Likins (1974) was one of several events during the past two decades which has helped give both substance and definition to deinstitutionalization efforts within the State of Minnesota. The suit was initiated in 1972 and sought to "...assert a due process claim compelling the state to seek out and develop less restrictive, community-based alternatives for the care and treatment of judicially committed mentally retarded persons" (Welsch v. Likins, 373 F.Supp. 487 1974). The long-standing suit culminated in a recent consent decree (Welsch-Noot, 1980) which requires the State to reduce the overall population of mentally retarded persons residing in state institutions by nearly one-third during the next six years. This mandated reduction brings to focus several complex and important issues (Developmental Disabilities Planning Office, 1981). As counties and communities begin to plan and develop community-based placement opportunities, fundamental questions about deinstitutionalization will arise. One of the more immediate questions concerns the type of alternative community living arrangements which must be developed--how many, what kind, what size.

A. Deinstitutionalization and "Normalization"

The National Association of Superintendents of Public Residential Facilities for the Mentally Retarded (1974) defined deinstitutionalization as a three-fold process:

1. prevent admission of people to public residential facilities by finding and developing alternative community residential facilities;

2. return to community residential facilities all public residential facility residents who have been prepared through programs of habilitation and training to function in appropriate local settings;

3. establish and maintain responsive residential environments which protect human and civil rights and which contribute to expeditious return of the individual to normal community living whenever possible.

The "normalization" principle is fundamental to the deinstitutionalization process. The principle holds that, by utilizing means which are as culturally normative as possible, it is possible to establish and/or maintain personal behaviors and characteristics which are more culturally normative (Wolfensberger, 1972). The key then is to provide opportunities, patterns and conditions in everyday life which are as close as possible to the norms and patterns of mainstream society.

The "normalization" philosophy is supported by two corollary principles: the least restrictive doctrine (defined in several major court decisions) espouses the view that individuals ought to "be served under conditions that maximize opportunities to live and learn in normal settings in society; the developmental programming model "assumes that limitations of all retarded people are modifiable regardless of their degree of impairment" (Bruininks, Kudla, Hauber, Hill and Wieck, 1981).

B. "Normalized" Housing Options

These underlying principles seem to imply two things for the planning of residential facilities: (1) physical integration by way of small, home-like structures; and (2) social integration through thoughtful use of existing community resources in the areas of training, education, leisure and employment (Bruininks et al, 1981; O'Brien and Poole, 1978).

Housing under the normalization principle deviates from usual patterns and standards only to the extent that departures from the norm will better serve the needs of disabled residents. Under ideal conditions, residents with handicaps live in the same kinds of houses (size, location and design) as non-handicapped individuals (Roos, 1974).

> "At least three overlapping dimensions of attitudes and philosophies can be discerned in building design. These are (1) the role expectations, the building design, and atmosphere impose upon prospective residents, (2) the meaning embodied in or conveyed by a building, and (3) the focus of convenience designed into the building, i.e., whether the building was designed primarily with the convenience of the residents, the community, the staff, or the architect in mind."
>
> (Wolfensberger, 1976)

The developmental model suggests architectural designs which "...(1) facilitate and encourage the resident's interaction with the environment; (2) maximize interaction between staff and residents; (3) foster individuality, dignity, privacy, and personal responsibility; (4) furnish residents with living conditions which not only permit but encourage functioning similar to that of nonhandicapped community age peers" (D.D. Project on Residential Barriers, 1977). Various authors have suggested that residential dwellings should approximate the atmosphere, structure and appearance of similar, surrounding homes--any variations in design or function should "either compensate for handicaps, and/or maximize the likelihood of developmental growth" (D.D. Project on Residential Services, 1977; Roos, 1974; Noakes, 1974). This implies that the scale of support facilities should also conform to community norms.

II. STATEMENT OF PROBLEM

The recent Welsch v. Noot consent decree (1980) has vested the State's deinstitutionalization efforts with new significance. County responsibilities to mentally retarded citizens have become more immediate. By the terms of the court-sanctioned agreement, future referrals to the State's eight institutional facilities will be greatly curtailed; moreover, approximately 800 persons currently residing in institutions will require some type of community placement between now and July of 1987. Counties therefore must develop community placement opportunities for persons coming out of state hospitals as well as those persons who might otherwise have been referred to institutional care.

A. Policy v. Practice

Under Minnesota law (Minnesota Statutes 1980, Chapters 245, 252, 256E and 393), individual counties are responsible for planning and establishing after-care services (see also, DPW Rule 185). Counties will be called upon to develop community residential alternatives that fulfill the mandate of the Welsch decree which states in part that:

> "Persons shall be placed in community programs which appropriately meet their individual needs. Placement shall be made in either a family home or a state licensed home, state licensed program, or state licensed facility except when...the most appropriate placement would be an independent community residence, such as an apartment."
> (Welsch v. Noot, 1980, p. 8, paragraph 34)

> "For those persons not returning to their homes, preference shall be given to placement in small residential settings in which the population of mentally retarded persons does not exceed 16 and to facilities which, although exceeding 16 in total size, have living units of no more than 6 persons."
> (Welsch v. Noot, 1980, p. 8, paragraph 25)

Although the decree indicates a preference for small residential settings, the state is "not obligated to assure placement of any quota of residents in settings or living units of a particular size" (Weslch v. Noot, 1980, p. 8, paragraph 25). Consequently, there are no clear indications of the types, numbers, and sizes of facilities counties will be required to develop. Moreover, even though the several governmental licensing, construction and program review guidelines espouse the principles of normalization, least restrictive environments and the developmental programming concept, a wide discrepancy exists in the application of those principles both between and among the various levels of government. Counties and other potential developers must somehow make sense of the various rules, standards, and regulatory guidelines.

B. Program Standards Regarding "Size"

DPW Rule 185 establishes county responsibilities for persons who are mentally retarded. Under Rule 185, the Commissioner of DPW must determine the need, location and program for residential facilities. The size of the facility must "relate to the needs of the clients for services;" no facility for more than eight persons will be approved unless it can be clearly shown that residents will be better served in a larger facility and then only if the size of living units are for no more than six persons (12MCAR 2.185).

DPW Rule 34 applies to any facility or service engaged in the provision of residential or domiciliary services for mentally retarded individuals. Licensure requirements are applicable to all facilities serving more than four persons. Rule 34 facilities provide services on a 24-hour basis and include group homes, child-caring institutions, board and lodging homes, boarding-care homes, nursing homes, state hospitals, institutions and regional centers. A facility may consist of one or more living units. By rule definition, resident living units must be "small enough to ensure the development of meaningful interpersonal relationships..." The size of the living unit must be based upon the needs of the residents; there can be no more than 16 residents per living unit (a living unit may be a group home, foster home, ward, wing, floor, etc.). Primary living units may not have more than four persons to a bedroom (12MCAR 2.034).

DPW Rule 37 establishes guidelines under which the Department of Public Welfare makes "...grants to aid in the purchase, construction or remodeling of community residential facilities" for persons with mental retardation and cerebral palsy. The purpose of the program is to provide appropriate alternatives for such persons, "including those currently in state hospitals and nursing homes" and to allow them to "live in a home-like atmosphere near their families." One of the criteria under which grants are awarded is that facilities can house no more than 16 persons; no more than two facilities may be located together (12MCAR 2.037).

DPW Rule 8 establishes standards for group homes and licensing procedures for specialized facilities providing care "on a 24-hour-a-day basis for a select group of not more than ten children." Rule 8 standards prescribe no more than four children per bedroom (12MCAR 2.008).

DPW Rule 18 sets standards for the provision of semi-independent living services to people who are mentally retarded. Though the rule does not govern the living arrangements of clients, it affirms the normalization principle; i.e., that persons be provided "with the alternative which is least restrictive. This includes making available to the client patterns and conditions of everyday life that are as close as possible to the norms and patterns of the mainstream of society" (12 MCAR 2.018 - adopted May, 1981).

Supervised Living Facilities regulations promulgated by the Department of Health establish certain minimum standards for construction, equipment, maintenance, operation and licensure. These health standards defer to the licensure requirements of the Department of Public Welfare relative to the provision of appropriate space and arrangements for sleeping, dining, recreation and other common use activity areas; i.e., facility size is subject to DPW rule standards (7MCAR 1.391-1.401).

Federal SNF, ICF/MR Standards require that participating facilities meet state licensure standards. Consequently, no specific facility "size" standards have been established. The Health Care Financing Administration has, however, developed some very general guidelines. An ICF/MR facility must admit only that number of individuals that does not exceed: its rated capacity; and its capacity to provide adequate programming (42 CFR 442. Subpart G, Section 442.420). An ICF/MR "may not house residents of grossly different ages, developmental levels, and social needs in close physical or social proximity" unless such arrangements are "planned to promote the growth and development of all those housed together." Also, an ICF/MR may not segregate residents on the basis of physical handicaps. Residents must be integrated "with others of comparable social and intellectual development" regardless of certain physical or neurological limitations (Subpart G, Section 442.444). Section 442.447 specifies that, unless granted a variance bedrooms must not accommodate more than four residents.

Federal Certificate of Need program regulations (42 CFR, Parts 122 and 123) have been developed in such a way as to "give each state substantial flexibility in determining how its certificate of need program will be implemented" (Federal Register, 24, 205, 69740. October 21, 1980). No specific "size" guidelines are prescribed. Under general federal standards, STATE HEALTH SYSTEMS AGENCIES must consider how facilities will meet individual resident needs. The quality and extent of proposed services is a major consideration. Within the general limitations imposed by DPW program rules and regulations, HSAs are able to exercise considerable latitude in determining the appropriate scale of proposed facilities, i.e., ascertaining how facility "size" might relate to resident care practices, facilitate individual growth and/or promote social integration. Facility size is determined by several factors: cost, resident programming needs, projected utilization, location, identified resident populations, accessibility/availability of necessary support services.

1122 Review - Need Determination and Cost Containment (Federal Capital Expenditure Review) procedural and criteria related requirements are similar to the minimum Federal requirements for state certificate of need reviews. 1122 regulations contain no explicit statements regarding facility size and/or resident populations. 1122 reviews assure that unnecessary capital expenditures are not incurred by/or on behalf of health care facilities (42 CFR 100). These determinations are subject to applicable state agency rules (e.g., DPW Rule 34 standards). 1122 reviews include an examination of operational potential, cost containment, financial feasibility, and service quality.

HUD Section 202 program loans are directed toward housing projects which serve elderly and handicapped individuals (24 CFR 885). Departmental policies attempt to limit the size and concentration of housing for physically handicapped persons. It is HUD's policy "to encourage housing for the physically handicapped which provides for their continued integration in the community...rather than permitting the segregation of the handicapped by themselves." Consequently, only proposals for "small apartment complexes of six to 24 units or congregate group homes for occupancy of up to 12 persons" are generally approved. HUD has a similar policy regarding housing for developmentally disabled persons. Approvals are limited to small group homes: "Although group homes for up to 12 persons per site will be permitted, facilities for six to eight persons would be preferable, if feasible, as smaller projects can provide a more normal and home-like noninstitutional environment" (HUD Handbook 4571.1 REV, 1978). HUD policy further maintains that all projects intended for occupancy should be designed for independent living; thereby making a wide variety of housing types possible.

"Most proposals involving the developmentally disabled have proposed group homes. However, to be consistent with the basic objective of maximizing independence, proposals for the developmentally disabled which provide opportunities for more independent living will be encouraged... Housing...should be located in predominantly residential neighborhoods where other family housing is located...In all group homes, only one or two-person occupancy will be permitted in each bedroom unit" (HUD Handbook 1978).

Municipal Zoning Authority in Minnesota is derived from State Statute (Chapter 462). Section 462.357, subdivision 1 establishes the authority of municipalities to regulate the use of property within (and, in certain instances, adjacent to) their boundaries. Zoning authority is conferred upon municipalities in order that they might promote the "public health, safety, morals and general welfare..." The state has, however, established certain standards with statewide applicability:

"In order to implement the policy of this state that mentally retarded and physically handicapped persons shall not be excluded by municipal zoning ordinances from the benefits of normal residential surroundings, a state licensed group home or foster home serving six or fewer mentally retarded or physically handicapped persons shall be considered a permitted single family, residential use of property for the purposes of zoning" (Section 462.357, subdivision 7).

Chapter 462 states further that, "Unless otherwise provided in any town, municipal or county zoning regulation...a state licensed residential facility serving from seven through 16 mentally or physically handicapped persons shall be considered a permitted multi-family residential use of property for purposes of zoning" (Section 462.357, subdivision 8). Conditional use or special use permits may not be imposed on such facilities if they are more restrictive than those imposed on other, similar structures, except that "additional conditions are necessary to protect the health and safety of the residents of the residential facility..."

Chapter 252 establishes the authority of the Commissioner of DPW to "determine the need, location and programs of public and private residential and day care facilities and services for mentally retarded children and adults" (Section 252.28, subdivision 1). Subdivision 3 references Chapter 245: "No license or provisional license shall be granted when the issuance of the license would substantially contribute to the excessive concentration of residential facilities within any town, municipality or county of the state" (Section 245.812, subdivision 1). When determining if a license will be issued, the commissioner must "specifically consider the population, size, land use plan, availability of community services and the number and size of existing public and private community residential facilities in the town, municipality, or county..." (Section 245.812, subdivision 2). Under Section 245.812, subdivision 3, "A licensed residential facility serving six or fewer persons or a licensed day care facility serving ten or fewer persons" must be considered a permitted single family residential use of property.

The Minnesota Housing Finance Agency administers a program which provides non-profit sponsors with up to 100% permanent mortgage financing for the development of residential group homes. The program has several objectives; among these are: providing facilities that offer normalized life patterns; providing supervised living environments which permit training in self-sufficiency skills; providing living conditions which respond to residents' special needs while offering alternative life styles to institutionalization. Projects may house from six to 16 persons (Residential Group Home Program/MHFA, 1980).

III. REVIEW OF LITERATURE

As the state continues its deinstitutionalization efforts and counties endeavor to develop community residential opportunities, it becomes important to establish a link between practice (implementation of Welsch/development of residential housing) and policy (normalization).

State policy statements and the Welsch decree both espouse the normalization principle and the doctrine of least restrictive alternatives. However, how do counties incorporate those philosophies into residential housing designs and community-based programming? Existing program standards generally provide only very broad guidance. Under what circumstances and conditions might the design of dwelling units contribute to the further development of residents? Does facility "size" bear any relationship to the quality of resident care? What constitutes a least restrictive, normalized environment?

A. "Size" and Its Impacts

Most of what has been written about the impact of "size" is inconclusive. Facility size has not been identified as a definitive predictor of care practices or resident behavior development (Balla, 1976; Bjaanes and Butler, 1974; McCormick, Balla and Zigler, 1975). Research indicates that size per se is neither the source of all ills nor the solution to all problems (Raynes, 1977). Culturally normative environments are defined by several considerations: social interaction, access to community resources/services, programming, staffing patterns, geographic location, etc. (Crawford, 1979; McCormick, Balla and Zigler, 1975; Dellinger and Shope, 1978); facility size is only one of several factors.

King, Raynes and Tizard (1971) suggest that the organizational structure and the type of institutions may be more important than size in influencing the patterns of care. They point out that even relatively small hospital facilities, and facilities with small living units, can exhibit institutionally-oriented care patterns. They observe further, however, that "The history of mental institutions suggests that the larger the institutions have become, the harder it has been to eschew the obvious attractions of centralization and to maintain an appropriate balance with the social environment 'outside'."

Wolfensberger (1972) helped popularize the idea of small, specialized community-based residential programs as an alternative to traditional, multi-purpose institutional arrangements. By de-emphasizing comprehensiveness and centralization, more "normal" patterns of social interaction are encouraged. Neither superior care nor social integration is guaranteed, however, in small community settings (Balla, 1976; Baroff, 1980; Bjaanes and Butler, 1974). Inadequate community-based facilities do exist; likewise, excellent "larger" facilities are not uncommon (Raynes, 1977).

B. "Small" v. "Large"

The literature does suggest, however, that "smaller" community residences are generally preferable to larger establishments; that normalized environments are more readily established and maintained in smaller, community-based residential settings. Though small size per se is neither necessary nor sufficient to insure appropriate care, the following service attributes are more likely to prevail in smaller facilities and have been identified as being influential in producing gains in adaptive behavior and general developmental growth:

- individualized attention (Baroff, 1980);
- resident-oriented care practices (Balla, 1976; Baroff, 1980; King, Raynes and Tizard, 1971; McCormick, Balla and Zigler, 1975);
- absences of security features, existence of personal effects, privacy in bathroom and bedroom areas (Balla, 1976; Baroff, 1980);
- community exposure/social interaction (Crawford, 1979; Baroff, 1980);
- experienced, trained direct care staff (Dellinger and Shope, 1978; Baroff, 1980).

Citing the findings of a 1979 study (Eyman, Demaine and Lei), Baroff (1980) suggests that "the apparent value of locating residential settings within rather than apart from community resources, a condition more easily achieved in small residential settings, is...reflected in behavior gains in personal and community self-sufficiency as a function of residential proximity to community services...research appears to...show that such normalization elements as proximity of the residence with the neighborhood, appearance and internal comfort can produce real gains in adaptive behavior."

Baroff (1980) also reviewed the findings of seven other studies. Each sought to examine the relationship between behavior and size. Six of those studies indicated some advantages in smaller settings. One showed no difference; none indicated any advantages accruing to larger settings.

> "It does seem that size makes some difference. Smaller residential settings, typically serving not more than ten persons, can necessarily be more responsive to individual needs. Moreover, their location in normal community residential neighborhoods allows easy access to the range of community experiences that can enhance social, vocational, and recreational skills and can foster greater independence. These same experiences are much more difficult to provide in the more physically isolated and autonomous settings of the larger institutions."
>
> (Baroff, 1980, p. 116)

IV. IMPLICATIONS FOR PLANNING

Minnesota's 87 counties are charged with the responsibility for developing residential placement opportunities for many of the State's developmentally disabled citizens; and they must provide those opportunities within the constructs of the normalization principle--as espoused by federal, state and sub-state regulatory guidelines. The application of that principle is inconsistent both between and among the various regulatory and licensing authorities. There are no systematic guidelines relative to facility "size."

To some extent, imprecision and lack of clarity in regulatory standards may be unavoidable. Federal guidelines in most cases prescribe only minimum standards. Their application is broad politically as well as geographically. They must take into account the disparate nature of service delivery systems among the many states. Under these circumstances, lack of specificity is understandable--though no less confounding to state and local implementing agencies. Similarly, certain state standards are broad in application as well as definition (e.g., DPW Rule 34). The general nature of rules is not altogether unreasonable. Some programs must accommodate a wide range of disabilities and service needs. This lack of specificity, however, places much of the burden for determining the appropriateness of program and facility design upon developers. It is imperative then that counties and other decision-makers recognize the consequences of various policy decisions. Already some policy-makers have indicated a need for more standardized, coherent policy statements on "size" (see DD Residential Guidelines Task Force/Metropolitan Health Board, 1980).

The literature suggests that "size" may be an important factor in determining the degree to which normalization has been achieved; hence the development of individual residents. Additional analysis will help define the relationship between facility size and program policy objectives. Also, further analysis of size-cost factors will prove helpful to planners and developers as they gin to make important decisions about the future direction of residential rvices.

Facility cost is an especially important issue. Studies indicate that community care models may indeed be cost-effective alternatives to public institutional facilities. An analysis of national data (Wieck, 1980) indicates that the lowest per diem rates among community residential facilities were associated with the smallest homes which were family owned and operated and offered the least amount of support services. A study of "small" group homes in Minnesota (Heiner and Bock, 1978) also suggests that smaller facilities are capable of producing "positive client changes at a better rate than larger ones; and...without significantly higher costs." The findings from the Minnesota study are described as "preliminary". Further study of size-per diem relationships should prove enlightening.

Planning and other development efforts should endeavor to assess all "costs". Planners should be advised that cost and efficiency are defined in terms broader than dollars. Although difficult to prove empirically, "...it is entirely possible that economies of scale apply favorably to [larger facilities] relative to the meeting of basic needs but that this cost savings is at least partially offset by diseconomies relative to the provision of psychosocial developmental services" (Regional Institute of Social Welfare, 1976).

Policy-makers will no doubt wish to consider other factors as well: personnel/staff, location, community resources/services, the impacts of fiscal constraints/opportunities, developments in programming models, etc.

It seems clear that, by definition, "normalization" implies small, home-like residential dwelling units. The primary focus of all residential programs must be the care and support of developmentally disabled residents rather than the convenience of developers. "Small" facilities may not be the most appropriate setting for all persons returning to communities under the mandates of the Welsch decree. The doctrine of least restrictive alternatives does not necessarily always imply "small"--it does, however, suggest a resident-oriented, developmental program focus.

Where it is determined that larger facilities with specialized services are a more appropriate care setting, developers should direct their attention toward ensuring appropriately modeled "living units". The literature suggests that the organization and management of living units can have a profound impact upon the development of skills, adaptive behaviors and personal growth.

In all cases, residential program development will require thoughtful and informed planning. Political decisions (e.g., the allocation of resources) must measure up to the philosophical considerations embodied within the Welsch decree (e.g., normalization and the right to a least restrictive living environment).

> "Superficially, the normalization principle might seem merely to apply to the life and circumstances of mildly handicapped people, or those not living in institutions. But it is wrong to think that living in the community can in itself be equated with being "integrated" into

society. The question still remains of how closely the life of mentally retarded people approaches that of "normal" members of that community. In fact, the normalization principle will have its most far-reaching consequences for retarded people presently living in hospitals and institutions."

(Nirje, "The Normalization Principle" Changing Patterns of Residential Services for the Mentally Retarded, p. 232)

REFERENCES

Balla, David A., "Relationship of Institutional Size to Quality of Care: A Review of the Literature." American Journal of Mental Deficiency, Vol. 81, No. 2, 117-124. September 1976

Baroff, George S., "On 'Size' and the Quality of Residential Care: A Second Look", Mental Retardation, Vol. 18, No. 3, 113-117, June 1980

Bjaanes, A. T., Butler, E. W., and Kelly, B. R., "Placement Type and Client Functional Level as Factors in Provision of Services Aimed at Increasing Adjustment" in Deinstitutionalization and Community Adjustment of Mentally Retarded People (R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin, editors). AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington D.C.: American Association on Mental Deficiency, 1981 (pp 337-350).

Bjaanes, A. T., and Butler, E. W., "Environmental Variation in Community Care Facilities for Mentally Retarded Persons", American Journal of Mental Deficiency, Vol. 73, No. 4, pp429-39, January 1974.

Bruininks, R. H., Kudla, M. J., Hauber, F. A., Hill, B. K., and Wieck, C. A., "Recent Growth and Status of Community Residential Alternatives", in Deinstitutionalization and Community Adjustment of Mentally Retarded People, (R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin, editors). AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington, D.C.: American Association on Mental Deficiency, 1981 (pp. 14-27).

Cohen, H., "Behavioral Effects of Institutional Relocation of Mentally Retarded Residents", American Journal of Mental Deficiency, Vol. 82, No. 1, pp 12-18, July 1977.

Crawford, J., et al, "Deinstitutionalization and Community Placement: Clinical and Environmental Factors", Mental Retardation, Vol. 17, No. 2, pp59-63, April 1979.

Developmental Disabilities Planning Office, Policy Analysis Series #1: A Taxonomy of Issues Surrounding Implementation of the Welsch v. Noot Consent Decree. St. Paul: Developmental Disabilities Planning Office, State Planning Agency, April 1981.

Developmental Disabilities Project on Residential Services and Community Adjustment. Project Report to the Inter-Agency HUD and HEW Task Force on Deinstitutionalization. Minneapolis: Department of Psychoeducational Studies, University of Minnesota. 1977.

Developmental Disabilities Residential Guidelines Task Force, "Report of the Developmental Disabilities Residential Guidelines Task Force" (Submitted to the Metropolitan Health Board of the Metropolitan Council). St. Paul: Metropolitan Health Board/DD Program Office, August 13, 1980.

Dellinger, J. K., and Shope, L. J., "Selected Characteristics and Working Conditions of Direct Service Staff in Pennsylvania CLAs", Mental Retardation, Vol. 16, No. 1, 19-21, February 1978.

Eyman, R. K., Demaine, G. C., and Lei, T., "Relationship Between Community Environments and Resident Changes in Adaptive Behavior: A Path Model", American Journal of Mental Deficiency, Vol. 83, pp 330-338, 1979 (cited in Baroff, 1980).

Felsenthal, D., and Scheerenberger, R. C., "Stability and Attitudes of Primary Caregivers in the Community", Mental Retardation, Vol. 16, No. 1, pp 16-18, February 1978.

King, R. D., Raynes, N. V., and Tizard, J., Patterns of Residential Care: Sociological Studies in Institutions for Handicapped Children, London: Routledge & Kegan Paul, Ltd. 1971.

"Minnesota Model Standards: The Development Testing and Evaluation of a Proactive Quality Assurance Mechanism for Facilities for the Mentally Retarded" (Final Report). Minnesota Management Model for Deinstitutionalization Project. St. Paul: Department of Public Welfare, MR Program Division, January 1980.

McCormick, M., Balla, D., and Zigler, E., "Resident-Care Practices in Institutions for Retarded Persons: A Cross-Institutional, Cross-Cultural Study", American Journal of Mental Deficiency, Vol. 80, No. 1, 1-17, July 1975.

National Association of Superintendants of Public Residential Facilities for the Mentally Retarded. Contemporary Issues in Residential Programming, Washington, D.C.: President's Committee on Mental Retardation, 1974.

Nirje, B., "The Normalization Principle", Changing Patterns in Residential Services for the Mentally Retarded (revised edition), Washington, D.C.: President's Committee on Mental Retardation, 1976, pp. 231-240.

Noakes, E. H., "What is the Problem? Whose Problem Is It? How Widespread Is It?", in Proceedings of National Conference on Housing and the Handicapped, September 10-12, 1974; Houston, Texas, convened by Goodwill Industries of America (project of Division of Developmental Disabilities, Rehabilitation Services Administration, Dept. of HEW). (Cited in D.D. Project, 1977)

O'Brien, J., Poole, C., "Planning Spaces: A Manual for Human Service Facilities Development", Atlanta: Georgia Association for Retarded Citizens (Community Education Project), June 1978.

Raynes, N. V., "How Big is Good? The Case for Cross-Cutting Ties", Mental Retardation, Vol. 15, No. 5, pp 53-54, October 1977.

Regional Institute of Social Welfare Research, "Is Statewide Deinstitutionalization of Children's Services a Forward or Backward Social Movement?", Athens, Georgia: University of Georgia/U.S. Dept. of Commerce, NTIS 1976.

Roos, P., "Implications for Developing a National Program for Housing and Handicapped People", in Proceedings of National Conference on Housing and the Handicapped, September 10-12, 1974; Houston, Texas, convened by Goodwill Industries of America (project of Division of Developmental Disabilities, Rehabilitation Services Administration, Dept. of HEW). (Cited in D.D. Project, 1977

Scheerenberger, R. C., and Felsenthal, D., "Community Settings for MR Persons: Satisfaction and Activities", Mental Retardation, Vol. 15, No. 4, pp 3-7, August 1977.

Schroeder, S., and Henes, C., "Assessment of Progress of Institutionalized and Deinstitutionalized Retarded Adults: A Matched-Control Comparison", Mental Retardation, Vol. 16, No. 2, pp147-8, April 1978.

"The Relationship of Client Capacity to Client Development, Client Movement and Costs in Intermediate Care Facilities (ICF/MR) for the Mentally Retarded: Final Report" (Karl W. Heiner/Warren H. Bock, principal investigators). St. Paul: Department of Public Welfare/MR Program Division, September 1978.

Wieck, C. A., "The Cost of Public and Community Residential Care for Mentally Retarded People in the United States," Doctoral Dissertation, University of Minnesota, Minneapolis, 1980.

Wieck, C. A., and Kudla, M. J., (Robert H. Bruininks, team leader) "Evaluation of Board and Care Facilities: A Report on Minnesota's Human Services", (submitted to Nancy Dittmer, Denver Research Institute); Minneapolis: University of Minnesota, Department of Psychoeducational Studies, 1980.

Wolfensberger, W., The Principle of Normalization in Human Services, Toronto: National Institute of Mental Retardation, 1972. (Cited in Balla, 1976; Baroff, 1980).

Wolfensberger, W., "The Origin and Nature of Our Institutional Models", in Changing Patterns in Residential Services for the Mental Retarded (R. Kagel and A. Shepard, editors). Washington, D.C.: U.S. Government Printing Office, 1976 (Cited in D.D. Project, 1977).

CURRENT GUIDELINES

Welsch v. Likins, 373 F.Supp. 487 (1974)
U.S. District Court, District of Minnesota, Fourth Division, February 15, 1974.

Welsch v. Likins, 550 F.2d 1122 (1977)
United States Court of Appeals, Eighth Circuit.
Submitted January 13, 1977; Decided March 9, 1977.

Welsch-Noot Consent Decree; United States District Court, District of Minnesota, Fourth Division. U.S. District Judge Earl Larson. September 15, 1980.

12 MCAR 2.185 (DPW Rule 185) County Board or Human Service Board Responsibilities to Individuals Who Are or May Be Mentally Retarded (State Register, Vol. 5, No. 33, 1263, February 16, 1981).

12 MCAR 2.037 (DPW Rule 37) Department of Public Welfare Rule for the Administration of Grants In Aid to Residential Facilities for the Mentally Retarded and Cerebral Palsied.

12 MCAR 2.008 (DPW Rule 8) Standards for Group Homes and Licensing Procedures.

12 MCAR 2.018 (DPW Rule 18)--Standards for the Provision of Semi-Independent Living Service (SILS) to People Who Are Mentally Retarded. (Published at State Register, Vol. 5, No. 47, 1,888, May 25, 1981.)

12 MCAR 2.034 (DPW Rule 34)--Standards for the Operation of Residential Facilities and Services for Persons Who Are Mentally Retarded. (Amendments to 12 MCAR 2.034: State Register, Vol. 5, No. 47, 1,889, May 25, 1981.)

7 MCAR 1.391-1.401 (Chapter Twenty-Three: MHD 391-401) Regulations for Construction, Equipment, Maintenance, Operation and Licensure of Supervised Living Facilities.

42 CFR 442
Title 42 - Public Health/Chapter IV - Health Care Financing Administration
Part 442 - Standards for Payment for Skilled Nursing and Intermediate Care Facility Services (reference: Section 1905(c) and (d) of the Social Security Act)

42 CFR 122/42 CPR 123
Title 42 - Public Health/Chapter 1, Public Health Service
Health Systems Agency and State Health Planning and Development Agency Reviews; Certificate of Need Programs (Federal Register, Vol. 45, No. 205, 69740, October 21, 1980).

42 CFR 100
Title 42 - Public Health/Chapter 1 - Public Health Service
Subchapter 1 - Medical Care Quality and Cost Containment
Part 100 - Cost Containment and Quality Control
(reference: Section 1122 of the Social Security Act (42 U.S.C. Chap 7).

24 CFR 885
Title 24 - Housing and Urban Development/Chapter VIII - Low Income Housing, Department of HUD
Part 885 - Loans for Housing for the Elderly or Handicapped (Reference: Section 202 of the Housing Act of 1959, as amended, 12 U.S.C. 1701q)

HUD Handbook 4571.1 REV, Section 202 Direct Loan Program for Housing for the Elderly and Handicapped (Transmittal No. 5). Chapter 1, Section 1-5, Washington, D.C.: U.S. Dept. of Housing and Urban Development. March 10, 1978.

Apartment Development Division, "Group Residences for the Developmentally Disabled", St. Paul: Minnesota Housing Finance Agency/Apartment Development Division, 1980.

Minnesota Statutes, Chapter 462 - Housing, Development, Planning, Zoning. see Section 462.357, Subds. 1, 7 and 8

Minnesota Statutues, Chapter 245 - Department of Public Welfare/Public Welfare and Related Activities. see Section 245.812, Subds 1, 2, 3 and 4 (Sections 245.61 to 245.69 authorize County Boards to make grants for local mental health programs; to establish/facilitate programs in mental health, mental retardation and inebriacy. Sections 245.781 to 245.812 - "Public Welfare Licensing Act" - establishes the authority of the Commissioner of DPW to license operators of day care and residential facilities. Sections 245.781 to .812 do not apply to a day care or residential facility serving fewer than five physically or mentally handicapped adults.)

Minnesota Statutes, Chapter 252 - Mentally Retarded and Epileptic; State Hospitals. see Section 252.28, Subd. 1 and 3. (Section 252.28 references the authority of the Commissioner of DPW to determine the need, location and program of public and private residential and day care facilities and services for mentally retarded children and adults.)

Minnesota Statutes, Sections 252A.01-.21 - "Mental Retardation Protection" directs the Commissioner of the Department of Public Welfare to supervise persons with mental retardation who are unable to fully provide for their own needs and to protect their human and civil rights by assuring a full range of social, financial, residential and habilitative services.

Minnesota Statutes, Sections 256E.01-.12 - "Community Social Services Act" establishes a system of planning for and providing community social services administered by the boards of county commissioners of each county.

Minnesota Statutes, Section 393.07 - "Public Child Welfare Program" mandates that county welfare boards administer a program of social programs and financial assistance to children who are confronted with social, physical or emotional problems requiring such protection and assistance.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Bruce Balow, Ph.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #2: The Size of Community Residential Facilities: Current Guidelines and Implications for Planning. St. Paul, MN: Developmental Disabilities Program, State Planning Agency, August 1981.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 3

INTERAGENCY COOPERATION: THE UNDERLYING CONCEPTS OF TRUST, INCENTIVES, BARRIERS, AND FORMS OF LINKAGE.

As noted in the first paper of this policy analysis series, Taxonomy of Issues Surrounding Implementation of the Welsch v. Noot Consent Decree, interagency cooperation will be an essential element in the implementation process. Cooperation is needed between agencies on each level of government (county, state, and federal), between levels of government, and with organizations such as advocacy groups and service providers. Two factors are responsible for this need for cooperation: 1) the necessity of clarifying roles and responsibilities in a system where services are provided by several agencies, and 2) the need for developing "policy linkages" that will combine statutory and regulatory functions with policy intent.

The purpose of this paper is to explore both the processes which facilitate and those which discourage interagency cooperation in an effort to encourage cooperation among the parties responsible for implementation of the decree. With that aim in mind, this paper discusses relevant research on the concepts of trust, the difference between cooperation and competition, barriers to cooperation, incentives for cooperation, and program linkage structures.

I. ON TRUST

In 1948, Morton Deutsch published his doctoral dissertation on the topics of cooperation and conflict. Since that time, he and others have published extensive research findings on the variables that affect trust and communication in a cooperative relationship. The research studies regarding the Prisoner's Dilemma Game[1] were particularly popular during the late 1960s.

---

[1] The Prisoner's Delimma Game is a two person, non zero sum game in which the gains or losses incurred by each person are a function of the choices made by each partner. The game situation is presented as follows:

> Two suspects are taken into custody and separated. The district attorney is certain they are guilty of a specific crime, but he does not have adequate evidence to convict them at a trial. He points out to each prisoner that each has two alternatives: to confess to the crime the police are sure they have done or not to confess. If both do not confess, then the district attorney states that he will book them on some very minor trumped-up charge...., if both confess, they will be prosecuted, but he will recommend less than the most severe sentence; but if one confesses and the other does not, then the confessor will receive lenient treatment for turning state's evidence whereas the latter will get the "book" slapped at him.

The essential psychological feature of the game is that there is no possibility for "rational" individual behavior in it unless the conditions for mutual trust exist. If each player chooses to obtain either maximum gain or minimum loss for himself, he will lose. But it makes no sense to choose the other alternative which could result in maximum loss, unless one can trust the other player. If one cannot trust, it is, of course, safer to choose so as to suffer minimum rather than maximum loss.

DEVELOPMENTAL DISABILITIES PLANNING • DEPARTMENT OF ENERGY, PLANNING AND DEVELOPMENT
201 CAPITOL SQUARE BLDG. • 550 CEDAR STREET • ST. PAUL, MN 55101 • 612/296-4018

Initial research work by Deutsch began with possible motivational orientations that an individual could have in any interpersonal situation. The initial set of orientations[2] were (1) cooperative - the person has a positive interest in the welfare of the others as well as his own welfare, (2) individualistic - the person has an interest in doing as well as he can for himself and is unconcerned about the welfare of others, and (3) competitive - the person has an interest in doing better than the others as well as in doing as well as he can for himself. Trust comes from the development of a shared cooperative orientation and is enhanced by factors such as bonds of friendship, awareness of similarity in values, common group membership and allegiance, normative pressures to be cooperative in the situation or broader environment, and personality predispositions favoring cooperation. In some cases, trust can be ensured by commitment of individuals to a contract or arranging the contract to be enforceable by superior powers.

The implications of Deutsch's research work indicate:

1. There are social situations that, in a sense, do not allow for the possibility of rational individual behavior as long as the conditions for mutual trust do not exist.

2. Mutual trust is most likely to occur when people are positively oriented to each other's welfare and least likely to occur when they are negatively oriented to each other's welfare.

3. Mutual trust can occur even under circumstances in which the people involved are clearly unconcerned with each other's welfare, provided that the characteristics of the situation are such that they lead one to expect one's trust to be fulfilled. Some of the situational characteristics that may facilitate the development of trust appear to be the following:
   a. The opportunity for each person to know what the other person will do before he commits himself irreversibly to a trusting choice.
   b. The opportunity and ability to communicate fully a system for cooperation that defines mutual responsibilities and also specifies a procedure for handling violations and returning to a state of mutual cooperation with minimum disadvantage if a violation occurs.
   c. The power to influence the other person's outcome and hence reduce any incentive he may have to engage in untrustworthy behavior. It is also apparent that exercise of that power, when the other person is making untrustworthy choices, may elicit more trustworthiness.
   d. The presence of a third person whose relationship to the two players is such that each perceives that a loss to the other player is detrimental to his interests vis-a-vis the third person. (Deutsch, 1973, p. 216)

---

[2] Since the initital set of orientations were outlined, Dutsch has added the following types:
(a) invidualistic - S is concerned with maximizing own satisfactions
(b) masocnistic - S is concerned with minimizing his own satisfactions
(c) altruistic - S is concerned with maximizing O's satisfaction
(d) hostile - S is concerned with minimizing O's satisfaction
(d) collectivistic - S is concerned with maximizing total satisfactions of S and O
(f) rivalrous - S is concerned with maximizing difference between himself and O
(g) egalitarian - S wishes to minimize difference (in his favor) between himself and O
(h) self-abasing - S wishes to maximize differences between O and S, in O's favor
(i) defensive - S wishes to prevent O from doing better than S.

S = subject   O = other person
(b), (c), (e), and (g) are common elements to a cooperative orientation;
(a), (d), (f), and (i) are common elements to a competitive orientation.

II. ON THE DIFFERENCE BETWEEN COOPERATION AND COMPETITION

Research results on the processes involved in cooperation and competition reveal four major dimensions of difference: (1) communication, (2) perception, (3) attitudes, and (4) task orientation.

1. Communication
   a. A cooperative process is characterized by open and honest communication of relevant information between the participants. Each is interested in informing, and being informed by the other.
   b. A competitive process is characterized by either lack of communication or misleading communication. It also gives rise to espionage or other techniques of obtaining information about the other that the other is unwilling to communicate. In addition to obtaining such information, each party is interested in providing discouraging or misleading information to the other.

2. Perception
   a. A cooperative process tends to increase sensitivity to similarities and common interests while minimizing the salience of differences. It stimulates a convergence and conformity of beliefs and values.
   b. A competitive process tends to increase sensitivity to differences and threats while minimizing the awareness of similarities. It stimulates the sense of complete oppositeness: "You are bad; I am good."

3. Attitudes toward one another
   a. A cooperative process leads to a trusting, friendly attitude, and it increases the willingness to respond helpfully to the other's needs and requests.
   b. A competitive process leads to a suspicious, hostile attitude, and it increases the readiness to exploit the other's needs and respond negatively to the other's requests.

4. Task orientation
   a. A cooperative process enables the participants to approach the mutually acknowledged problem in a way that utilizes their special talents and enables them to substitute for one another in their joint work, so that duplication of effort is reduced. The enhancement of mutual power and resources becomes an objective.
   b. A competitive process stimulates the view that the solution of a conflict can only be one that is imposed by one side on the other. The enhancement of one's own power and the minimization of the legitimacy of the other side's interests in the situation become objectives. It fosters the expansion of the scope of the issues in conflict so that the conflict becomes a matter of general principles and is no longer confined to a particular issue at a given time and place. The escalation of the conflict increases its motivational significance to the participants and intensifies their emotional involvement in it; these factors, in turn, may make a limited defeat less acceptable or more humiliating than mutual disaster might be. Duplication of effort, so that the competitors become mirror-images of one another, is more likely than division of effort. Coercive processes tend to be employed in the attempt to influence the other.

III. BARRIERS TO AND INCENTIVES FOR COOPERATION

The following "Barriers to Cooperation" and "Incentives for Cooperation" were adapted from the Jewish Vocational Service's Guidelines for Interagency Cooperation and the Severely Disabled (1978).

BARRIERS TO COOPERATION

A. FEARS

1. Fear of being absorbed into or controlled by another agency.
2. Fear that failures or inadequacies will be discovered and exposed.
3. Fear that funding sources will not approve such arrangements and will cut off funds.
4. Fear that exchanging resources will mean losing them or receiving less than you give.
5. Fear of innovation or change.

B. LACK OF COMMUNICATION

1. Lack of awareness and understanding of other agencies, their functions, and resources.
2. Lack of broad understanding of needs/options because a particular group is too specialized.
3. Energy drained by dealing with large, complex bureaucracy (e.g., Reduction in Force problems).
4. Staff do not plan for cooperation or see possibilities for cooperation because job demands exceed time and resources.

C. ENVIRONMENTAL FACTORS

1. No funds available for cooperative ventures.
2. Feuds due to personalities, tradition of agency, prejudices, broken trust.
3. Competition for same clients and resources.

INCENTIVES FOR COOPERATION

A. OUTSIDE PRESSURES

1. Change in priorities of the funding source.
2. Scarce resources or reduction in funding levels which necessitates streamlining/cooperation/greater efficiency.
3. Outside demand for cooperation necessary to provide new services to fill gaps or improve old ones.
4. Emergencies, external threats, natural disasters.

B. PREVAILING ATMOSPHERE

1. General interest in innovation.
2. History of past cooperation among agencies.
3. Mutual desire and decision to decrease overlaps and increase maximization of resources.
4. Objectives of agencies are mutually compatible.

C. SELF-INTEREST

1. Status gained from cooperating with a more prestigious agency.
2. Gain of tangible benefits.
3. Surplus resources are available for trade.

IV. PROGRAM LINKAGE STRUCTURES

The variety of possible program linkage structures to facilitate interagency cooperation is quite extensive. Such linkages may range from a minimal effort by two or more agencies in such areas as information exchange and problem identification, through projects which display varying degrees of system development, to comprehensive systems which involve central planning, management, client flow, and other such functions.

Gans and Horton first identified a list of commonly adopted program linkages and definitions. This list has subsequently been added to and modified by others. This version, which is accepted in practice as the conventional array of program linkages, is taken from Project Share's Dimensions of Services Integration; it is presented here to provide concrete examples of the numerous ways linkages between programs can be developed and maintained.

Joint planning:
The joint determination of total service delivery system needs, priorities and structured planning process.

Joint development of operating policies:
A structured process in which the policies, procedures, regulations, and guidelines governing the administration of a project are jointly established.

Joint programming:
The joint development of programmatic solutions to defined problems in relation to existing resources.

Information sharing:
An exchange of information regarding resources, procedures, and legal requirements (but not individual clients) between the project integrator and various service providers.

Joint evaluation:
The joint determination of effectiveness of service in meeting client needs.

Coordinated budgeting/planning:
The integrator sits with all service providers together or individually to develop their budgets but without any authority to ensure the budgets are adhered to or the traditional service agencies develop their budgets together.

Centralized budgeting:
A centralized authority develops the budgets for the traditional service agencies with the authority to ensure that they are adhered to: may or may not include central point funding.

Joint funding:
Two or more service providers give funds to support service; most often in a broad programmatic fashion.

Purchase of service:
Formal agreements that may or may not involve a written contract between the integrated system and some other party or among agencies to obtain or provide service; generally a fee-for-service arrangement.

Transfer of budget authority:
Funds are shifted from one agency within the integrated system to another agency in that same system.

Consolidated personnel administration:
The centralized provision of some or all of the following: hiring, firing, promoting, placing, classifying, training.

Joint use of staff:
Two different agencies deliver service by using the same staff; both agencies have line authority over staff.

Seconding, cross-agency assignment:
One or more employees are on the payroll of one agency but under the administrative control of another.

Organizational change across agencies:
Service agencies in the integrated system or newly created agencies receive staff or units from another agency in the system and/or an umbrella organization is created.

Organizational change within the agency:
Reorganization of agency staff or organizational units involving changes internal to each organization only (may be similar changes in each agency).

Colocation of central offices:
Central administrative offices for two or more agencies at the locale are relocated at a single site.

Colocation of branch functions:
Several agencies colocate personnel performing branch as opposed to centralized administrative functions at a single site.

Outstationing:
Placement of a service provider in the facility of another service agency; no transfer of line authority or payroll responsibility takes place.

Joint record keeping:
The gathering, storing, and disseminating of information about clients.

Joint grants management:
The servicing of grants.

Central support services:
The consolidated or centralized provision of services such as auditing, purchasing, exchange of material and equipment, and consultative services.

Satellite services:
Services provided whenever personnel from one service agency are restationed so as to increase the number of site agencies in the integrated network.

Joint outreach:
The systematic recruitment of clients.

Joint intake:
The process resulting in the admission (including determination of eligibility) of a client to the provision of direct service.

Joint transportation:
Provision of transportation to clients on a joint basis.

Referral:
The process by which a client is directed or sent for services to another provider by a system that is in some way centralized.

Diagnosis:
The assessment of overall service needs of individual clients.

Followup:
The process used to determine whether clients receive the services to which they have been referred and to shepherd the client through the service delivery system.

Case conference:
A meeting between the staff of two or more agencies who provide service to a given family for the purpose of discussing that family either generally or in terms of a specific problem, possibly determining a course of action and assigning responsibility among the agencies for implementing the solution.

Case consultation:
A meeting of staff members of agencies who provide service to a given family for the same purposes as specified in "case conference" above.

Case coordinator:
The designated staff member having prime responsibility to assure the provision of service to a given client by multiple autonomous providers.

Case team:
The arrangement in which a number of staff members, either representing different disciplines or working with different members of a given family, work together to relate a range of services of autonomous providers to a given client. The primary difference between case conferences and case teams is that the former may be ad hoc whereas the latter involve continuous and systematic interaction among the members of the team.

Joint data system:
A multiagency machine or computerized recordkeeping system containing at a minimum information regarding patients contacted and clients treated. (Project Share, 1979, pp 48-51)

During the forthcoming period of declining resources devoted to human services, there should be greater interest in creative methods of interagency cooperation. This paper summarizes several aspects of trust, incentives, and barriers that underlie such cooperation.

BIBLIOGRAPHY

Deutsch, Morton. The Resolution of Conflict: Constructive and Destructive Processes. New Haven: Yale University Press, 1973.

Jewish Vocational Services. Guidelines for Interagency Cooperation and the Severely Disabled. Chicago: Author, 1978.

Project Share. Human Services Monograph Series, Number 13, Dimensions of Services Integration. Washington, D.C.: Department of Health, Education and Welfare, April 1979.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Bruce Balow, Ph.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmenal Disabilities Program. Policy Analysis Series #3: Interagency Cooperation: The Underlying Concepts of Trust, Incentives, Barriers, and Forms of Linkage. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, August, 1981.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 4

COST FUNCTION ANALYSIS OF MINNESOTA INTERMEDIATE CARE FACILITIES FOR MENTALLY RETARDED (ICF-MR) PER DIEMS

I. INTRODUCTION

The direction and magnitude of deinstitutionalization may be determined in the future by cost arguments - at both the national and state levels. The recent Welsch v. Noot Consent Decree (1980) makes it especially imperative that policymakers identify and examine the many factors which affect the cost of community residential care in Minnesota. Future research will examine the total system costs for state hospitals and community programs, projected costs for alternative types of living arrangements, and the efficacy of existing funding mechanisms.

The primary purpose of the present study is to identify the critical factors (separately and in combination) which produce variations in per diem costs in Intermediate Care Facilities for Mentally Retarded (ICF-MR). The population frame included all ICF-MRs in Minnesota (N = 185) for which reliable data were available. (The most recent data available from the Department of Public Welfare and the Department of Health were for late 1979; the reader is cautioned about using information from this report for other purposes. A cost function analysis using 1980 data is forthcoming.)

Data for this study were compiled from several sources. The primary sources include:

- facility characteristics, per diems and staffing patterns from Rule 52 Cost Reports and computer listings on file in the Audit Division of the Department of Public Welfare;
- years of operation and client population (adult or children) from ICF-MR files in the Licensing Division/DPW;
- resident characteristics, functioning levels and the type of facility license (Class A or Class B) from Quality Assurance and Review program reports, Minnesota Department of Health.

II. METHODOLOGY

The statistical methodology employed in this study is a replication of the cost function analysis component of a national study on the costs of residential care (Wieck and Bruininks, 1980). That report contains a thorough review of literature of previous cost studies and a discussion of the "theory" which underlies this study's treatment of cost-related variables.

This study, like all statistical analysis, is not definitive. Statistical techniques cannot "prove" cause-effect relationships. They can, however, help policy-makers to estimate/predict cause-effect relationships with greater reliability; hence to make better decisions about allocating scarce resources. The present study attempts to identify several factors and their probable impact upon ICF-MR per diem rates. One important caveat: data derived from DPW files may represent the reimbursement structure rather than "true" cost. That is, not all "costs" of operation are necessarily reimbursable; not all costs are quantifiable in terms of dollars, although they are costs of operation nonetheless.

III. ANALYSIS OF VARIANCE

The first objective of this study is to test hypotheses about the relationship of selected locational, organizational, and resident characteristic variables with cost. These hypotheses, and results, are summarized as follows:

Locational Factors

1. Ho_1: There are no differences in the per diem rates for community residential services between Minnesota's eleven economic development regions.[1]

According to the results of a one-way analysis of variance test, there were significant differences ($p < .01$)[2] in the per diem rates of the ICF-MRs located in the various economic development regions. The ICF-MRs located in the Minneapolis-Saint Paul metropolitan area (Region 11) were operating during 1979 at the highest mean rate ($44.11), while the ICF-MRs in Regions 6 and 1 were operating at the lowest mean rate ($31.50 and $31.84 respectively). The mean per diem rate for ICF-MRs located in the metropolitan region was significantly different ($p < .01$) from the mean per diems of all other regions. The analysis of variance and table of means and standard deviations appear in Tables 1 and 2 respectively.[3]

---

[1] There are actually 13 economic development regions within the state. For the purposes of this study, Regions 6E and 6W were combined and treated as a single economic development region (Region 6); likewise for Regions 7E and 7W (Region 7). See the Appendix for a map of the State's economic development regions.

[2] The F-test is a statistical measure of the degree of variation among statistical groups. The larger the F-score, the smaller the probability that variation among the groups is statistically equal. A "significant" F-score indicates that there is a large probability (usually 95 percent or more) that a quantifiable statistical difference exists among groups.

[3] The "Mean" ($\overline{X}$) is a common measure of the central tendency of several variables. It is often referred to as the "average."

Variance (σ^2) is a measure of the dispersion of the data about the mean; it is a way of measuring how the individual per diems "cluster" around the mean value. The variance will be small where the per diems are very similar. The primary goal of this report is to identify and "explain" variations in per diem rates, i.e., identify those factors which are likely to "cause" differences in per diem rates.

Standard Deviation (σ/SD) is another measure of variance. It is a more obvious and intuitive measure of variation than is Variance because it is based upon the same units as the original variable (in this case, dollars).

Table 1

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Region

Source of Variation	df	SS	MS	F[2]
Between Groups	10	3978.56	397.86	3.78**
Within Groups	174	18323.76	105.31	
Total	184	22302.32		

**p < .01

Table 2

Mean Per Diems of ICF-MRs by Region

Region	Mean	SD	N
Region 1	31.84	8.51	7
Region 2	32.90	3.52	4
Region 3 (Duluth)	35.20	6.64	24
Region 4 (Moorhead)	35.97	10.62	18
Region 5	35.03	.19	2
Region 6	31.50	10.55	7
Region 7 (St. Cloud)	32.76	7.55	14
Region 8	40.18	11.53	8
Region 9 (Mankato)	37.77	7.28	8
Region 10 (Rochester)	38.39	9.26	18
Region 11 (Mpls.-St. Paul)	44.11	12.05	75

A second one-way analysis of variance was run between those facilities located in the Minneapolis-Saint Paul region (which contained approximately one-half of the State's population and 42 percent of all ICF-MRs in 1979) and all facilities located outside of the seven county metropolitan area. There was a significant difference ($p < .01$) between metropolitan per diems ($\overline{X} = \$44.11$) and out-state, non-metropolitan per diems ($\overline{X} = \$35.56$).

The data contained in this study have not been adjusted in advance for cost-of-living differences which may exist among the regions. Adjustment indices are published for national census regions for a hypothetical family of four in an urban area, but are rarely published for measuring within-state variation. The reader is advised that differences in ICF-MR per diems, although statistically significant, may indeed be indicative of cost-of-living differences rather than "real" cost differences.

Organizational Factors

Eight organizational factors have been suggested in previous studies (Wieck & Bruininks, 1980) as affecting cost differences: (1) size, (2) ownership of facility, (3) membership in a system or chain of residential facilities under one general ownership, (4) occupancy rate, (5) number of staff, (6) staff-resident ratio, (7) years of operation, and (8) the type of license (Class A or Class B). Estimates of staff turnover were not available for this analysis.

2. Ho_2: There is no relationship between per diem rates of residential services and facility size (size is defined in terms of number of residents).

Facilities were grouped into five size categories: (1) six or fewer residents, (2) seven to 12 residents, (3) 13 to 16 residents, (4) 17 to 32 residents, and (5) 33 or more residents. There were significant differences ($p < .05$) in the per diem rates of community residential facilities according to these size categories. The highest per diems were associated with the larger facilities ($42.13/33 or more residents) and the smallest facilities ($41.08/six or fewer residents). The lowest per diem ($35.55) was reported by facilities that had seven to 12 residents. The specific comparisons that produced significant differences ($p < .01$) were facilities in group 2 with groups 1, 4 and 5; and group 3 with groups 1, 4 and 5. All other comparisons were not significant.

The analysis of variance and table of means and standard deviation appear in Tables 3 and 4 respectively.

Table 3

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Size Categories

Source of Variation	df	SS	MS	F
Between Groups	4	1299.90	324.97	2.78*
Within Groups	180	21002.42	116.68	
Total	184	22302.32		

*$p < .05$

Table 4

Mean Per Diems of Minnesota ICF-MRs by Size Categories

Size Categories	Mean	SD	N
Group 1: 6 residents or fewer	41.08	6.89	64
Group 2: 7 - 12 residents	35.55	8.63	49
Group 3: 13 - 16 residents	36.66	11.95	27
Group 4: 17 - 32 residents	39.77	14.64	16
Group 5: 33 or more residents	42.13	16.37	29

An inverse relationship between size and per diem (cost) is commonly assumed, that is, as size increases per diem decreases. Traditional economic theory suggests, however, that there is a U-shaped relationship between average cost and size, with very small or very large facilities incurring higher average costs. Economy of scale may be more easily achieved within mid-size facilities; these economics may be reflected in lower average costs.

Wieck and Bruininks' national study (1980) indicated that there was a positive relationship between size and per diem: as the size of facilities increases, per diems increase. This relationship may be attributed to the increased amount of services typically provided by larger facilities. The results of this study suggest that the effects of economy of scale can be greatly affected by such factors as resident characteristics, staff-resident ratio, etc. In order to make meaningful statements about size and per diems, the issue must be studied longitudinally.

3. Ho_3: There is no relationship between per diem rates of residential services and ownership of facility.

Table 5 presents a summary of the analysis of variance (see Table 6 for means and standard deviations) for type of legal ownership with per diem as the dependent variable. These results indicate that, unlike nursing homes and community residential facilities in several national studies, the proprietary facilities in Minnesota are operating at higher per diems ($40.22) than non-profit facilities ($38.05); the difference is not statistically significant, however.

Table 5

Summary of Analysis of Variance of Minnesota
ICF-MRs by Profit/Nonprofit Ownership

Source of Variation	df	SS	MS	F
Between Groups	1	216.65	216.65	1.80
Within Groups	183	22085.66	120.69	
Total	184	22302.32		

Table 6

Mean Per Diems of Minnesota ICF-MRs by Profit/Nonprofit Ownership

Type	Mean	SD	N
Proprietary	$40.22	12.03	83
Non-profit	$38.05	10.06	102

In follow-up to this analysis, a one-way analysis of variance was run comparing facilities that are "family owned and operated" with those that are not. Wieck and Bruininks (1980) reported that on a national level "family-owned and operated facilities operat[ed] at a much lower rate than non-profit facilities...and proprietary facilities" (p. 136). A similar result occurred in this study, with significant differences ($p < .01$) occurring between family owned and operated facilities ($34.22) and those that were not ($41.00). Tables 7 and 8 present the summary of the analysis of variance test and the table of means and standard deviations.

Table 7

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Family Ownership

Source of Variation	df	SS	MS	F
Between Groups	1	1756.65	1756.65	15.65**
Within Groups	183	20545.67	112.27	
Total	184	22302.32		

**$p < .01$

Table 8

Mean Per Diems of Minnesota ICF-MRs by Family Ownership

Type	Mean	SD	N
Family Owned and Operated	34.22	8.15	54
Non-Family Owned and Operated	41.00	11.44	131

4. Ho_4: There is no relationship between per diem rates of residential services and membership in a system. (A system is a group of residential facilities owned and operated by one parent organization.)

Significant differences ($p < .05$) were found between community residential facilities that were members of systems and those that were not. The average per diem of system ICF-MRs was $40.52; and $36.87 for those that were not affiliated with a system. Tables 9 and 10 present the analysis of variance and table of means and standard deviations respectively.

These results corroborate the finding of Wieck and Bruininks' national study (1980). Further examination of this issue appears necessary before meaningful conclusions can be drawn.

Table 9

Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by System Membership

Source of Variation	df	SS	MS	F
Between Groups	1	598.40	598.40	5.045*
Within Groups	183	21703.92	118.60	
Total	184	22302.32		

*$p < .05$

Table 10

Mean Per Diems of ICF-MRs by System Membership

Type	Mean	SD	N
Member of System	$40.52	9.14	109
Non-member of System	$36.87	13.00	76

5. Ho_5: There is no relationship between per diem rates of residential services and occupancy rate.

Occupancy rate was defined as the number of residents divided by the licensed bed capacity. Occupancy ranged from less than 80 percent to 100 percent. The rates were categorized as follows: (1) 80 percent or less, (2) 81 to 90 percent, (3) 91 to 95 percent, and (4) 96 to 100 percent.

Previous studies have suggested that substantial variation in occupancy rates has had important consequences for cost, primarily because per diem is calculated on the number of residents (Peat, Marwick, Mitchell, & Co., 1976; Piasecki, Pittinger, & Rutman, 1977). ICF-MRs in Minnesota typically operate at or near licensed capacity. During 1979, nearly 84 percent of the facilities (N = 155) were operating at more than 95 percent of their licensed capacity.

No significant differences were found in comparing means of facilities grouped by occupancy rates, although facilities with occupancy rates of 81 to 90 percent had the highest per diem ($43.56). Tables 11 and 12 present the analysis of variance and table of means and standard deviations, respectively.

Table 11

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Occupancy Rate

Source of Variation	df	SS	MS	F
Between Groups	3	424.70	141.57	1.117
Within Groups	181	21877.62	120.87	
Total	184	22302.32		

Table 12

Mean Per Diems of ICF-MRs by Occupancy Rate

Occupancy Rate	Mean	SD	N
Group 1: ≤ 80%	$34.73	1.38	4
Group 2: 81 - 90%	$43.56	16.73	11
Group 3: 91 - 95%	$36.15	11.59	15
Group 4: 96 - 100%	$39.09	10.57	155

6. Ho_6: There is no relationship between per diem rates of residential services and number of staff.

A Pearson correlation coefficient was calculated between the number of full-time equivalent (FTE) direct care staff and per diem rates. The number of direct care staff was positively correlated ($r = .39$) at a significant level ($p < .01$).

7. Ho_7: There is no relationship between per diem rates of residential services and staff-resident ratio.

The staff-resident ratio factor illustrates the difficulty of identifying cause-effect relationships within residential care organizations. Staff-resident ratio, resident characteristics and facility services--as well as "artificial" conditions created by rules and regulations--appear to be highly correlated.

There is considerable evidence to suggest that staff-resident ratio is very much related to an organization's per diem rate. Residential services are labor-intensive industries; consequently, any change in the number or wage structure of employees will have a substantial impact upon costs.

In this study, the staff-resident ratio was calculated for each facility by dividing the total number of full-time equivalent direct care staff (40 hour week) by the total number of residents. The staff-resident ratios were categorized into five groups: (1) less than .33, (2) .33 to .65, (3) .66 to .99, (4) 1.00 to 1.32, and (5) 1.33 or more. A one-way analysis of variance was run with significant differences ($p < .01$) found among these groups.

Examination of the table of means (Table 14) indicates a direct relationship between staff-resident ratios and per diem costs: the higher the staff-resident ratio, the higher the per diem. When comparing each group with all others, only one comparison was not significant; that was group number one ($36.49) with group number two ($37.32). Table 13 presents the analysis of variance summary.

Table 13

Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Staff-Resident Ratio

Source of Variation	df	SS	MS	F
Between Groups	4	5551.59	1387.90	14.914**
Within Groups	180	16750.73	93.06	
Total	184	22302.32		

**$p < .01$

Table 14

Mean Per Diems of ICF-MRs by Staff-Resident Ratio

Staff-Resident Ratio	Mean	SD	N
Group 1: < .33	$36.49	10.97	83
Group 2: .33 - .65	$37.32	6.31	63
Group 3: .66 - .99	$42.56	10.41	28
Group 4: 1.00 - 1.32	$56.61	11.69	8
Group 5: 1.33+	$64.92	16.26	3

8. Ho_8: There is no relationship between per diem rates of residential services and years of operation.

It is not uncommon for newly-opened facilities to experience disproportionately high costs as a result of start-up expenses. Piasecki, et al (1977) suggested that initial costs for establishing a group home may equal or exceed the programs' annual operating budget; these costs might be attributed to building or remodeling requirements, legal fees, personnel recruitment and training or furnishings, supplies and related services.

The year of opening for the facilities was obtained from the Department of Public Welfare and subtracted from the constant year 1979 - the year from which data were derived. The years of operation were categorized into five groups: (1) one to two years, (2) three to four years, (3) five to six years, (4) seven to 20 years, and (5) 21 years or more. A one-way analysis of variance was calculated with significant differences ($p < .01$) occurring among groups. The highest per diem ($45.15) was reported for those facilities which had been operating for less than two years. The lowest mean per diem ($33.73) was associated with facilities which had been operating for seven to 20 years. The post hoc comparisons between each group with every other group revealed significant differences for all combinations except group three and group four, which was not significant. Tables 15 and 16 present the analysis of variance summary and the table of means and standard deviations.

Table 15

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Years of Operation

Source of Variation	df	SS	MS	F
Between Groups	4	2654.35	663.59	6.127**
Within Groups	178	19277.39	108.30	
Total	182	21931.74		

** $p < .01$

Table 16

Mean Per Diems of ICF-MRs by Years of Operation

Number of Years	Mean	SD	N
Group 1: 1 - 2 years	$45.15	12.12	35
Group 2: 3 - 4 years	$39.98	9.86	67
Group 3: 4 - 6 years	$36.34	10.98	46
Group 4: 7 - 20 years	$33.73	8.34	30
Group 5: 21 years or more	$34.28	10.38	5

9. Hog: There is no relationship between per diem rates of residential services and the type of license (Class A and Class B).

ICF-MRs in Minnesota are licensed as either Class A or Class B facilities. The classifications are dependent upon the residents' self-preservation skills (i.e., ability to egress from the building during an emergency). Class B facilities are for those persons who do not possess self-preservation skills. A one-way analysis of variance was run with significant differences ($p < .01$) reported for Class B facilities ($54.55) as compared to Class A facilities ($37.14). Tables 17 and 18 present the analysis of variance summary and the tables of means and standard deviations respectively.

Table 17

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Class A - Class B Categories

Source of Variation	df	SS	MS	F
Between Groups	1	5390.94	5390.94	58.63**
Within Groups	180	16550.83	91.95	
Total	181	21941.77		

**p < .01

Table 18

Mean Per Diems of ICF-MRs by Class A - Class B Categories

Type	Mean	SD	N
Class A	$37.14	8.45	162
Class B	$54.55	16.31	20

Resident Factors

There are six variables related to personal characteristics: (1) proportion of residents with severe or profound mental retardation, (2) proportion of residents who must be completely fed, (3) proportion of nonambulatory residents, (4) proportion of residents with severe behavior problems, (5) proportion of residents not toilet trained, and (6) age of residents.

10. Ho_{10}: There is no difference in the per diem rates of residential services and the proportion of severely or profoundly mentally retarded residents.

The proportion of residents who were classified as severely or profoundly mentally retarded was calculated for each facility. These proportions were then categorized into seven groups: (1) zero to five percent, (2) six to nine percent, (3) 10 to 19 percent, (4) 20 to 39 percent, (5) 40 to 49 percent, (6) 50 to 74 percent, and (7) 75 to 100 percent. A one-way analysis revealed significant differences ($p < .05$) with the lowest per diem ($32.99) reported for those facilities serving 40 to 49 percent severely or profoundly mentally retarded residents. This particular group differed significantly ($p < .01$) with all other groups. The analysis of variance summary and table of means and standard deviations appear in Tables 19 and 20 respectively.

Table 19

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Severely or Profoundly Mentally Retarded Residents Served

Source of Variation	df	SS	MS	F
Between Groups	6	1922.78	320.46	2.875*
Within Groups	177	19726.89	111.45	
Total	183	21649.67		

$^*p < .05$

Table 20

Mean Per Diems of Minnesota ICF-MRs by Proportion of Severely or Profoundly Mentally Retarded Residents Served

Proportion	Mean	SD	N
Group 1: 0 - 5%	$39.46	10.22	31
Group 2: 6 - 9%	$39.93	15.98	7
Group 3: 10 - 19%	$44.11	18.22	8
Group 4: 20 - 39%	$37.71	7.69	44
Group 5: 40 - 49%	$32.99	6.74	23
Group 6: 50 - 74%	$37.65	10.03	36
Group 7: 75 - 100%	$43.58	12.91	35

11. Ho_{11}: There is no difference in the per diem rates of residential services and the proportion of residents who must be fed completely.

Resident data on feeding skills was obtained from the Department of Health and categorized into five groups: (1) zero to five percent, (2) six to nine percent, (3) ten to 19 percent, (4) 20 to 39 percent, (5) 40 percent or more. Significant differences ($p < .01$) were found when a one-way analysis of variance was run on the various group means. There was a positive relationship between proportion of residents who were completely fed and the per diems. Almost all of the ICF-MRs (N = 175) had a low proportion (zero to 5 percent) of residents who had to be completely fed. Table 21 presents the analysis of variance summary while Table 22 presents the table of means and standard deviations.

Table 21

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Completely Fed

Source of Variation	df	SS	MS	F
Between Groups	4	4927.23	1231.81	12.76**
Within Groups	180	17375.09	96.52	
Total	184	22302.32		

**p < .01

Table 22

Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Completely Fed

Proportion	Mean	SD	N
Group 1: 0 - 5%	$37.86	9.41	175
Group 2: 6 - 9%	$49.38	12.68	2
Group 3: 10 - 19%	$51.02	0	1
Group 4: 20 - 39%	$60.19	19.50	5
Group 5: 40% +	$71.38	17.08	2

12. Ho_{12}: There is no difference in the per diem rates of residential services and the proportion of residents who are non-ambulatory

Again, resident data on non-ambulation were obtained from the Department of Health and classified into three groups: (1) zero to nine percent, (2) ten to 19 percent, and (3) 20 to 39 percent. Significant differences ($p < .01$) were found among groups as shown in Table 23. As the proportion of non-ambulatory residents increases, so does the per diem (as shown in Table 24); with the lowest per diem ($37.72) for facilities with zero to nine percent non-ambulatory residents and the highest per diem ($61.95) for facilities with 20 to 39 percent non-ambulatory residents.

Table 23

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Who are Non-ambulatory

Source of Variation	df	SS	MS	F
Between Groups	2	5243.71	2621.86	27.973**
Within Groups	182	17058.61	93.73	
Total	184	22302.32		

$^{**}p < .01$

Table 24

Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Who are Non-ambulatory

Proportion	Mean	SD	N
Group 1: 0 - 9%	$37.72	9.24	174
Group 2: 10 - 19%	$49.37	12.68	2
Group 3: 20 - 39%	$61.95	16.33	9

13. Ho_{13}: There is no difference in the per diem rates of residential services and the proportion of residents who have severe behavior problems.

Facilities were classified into three groups by proportion of residents who have severe behavior problems (defined by the Department of Health as "uncooperative, wanders, withdrawn, crying, hallucinates, disruptive/runs away...assaultive"): (1) zero to nine percent, (2) ten to 19 percent, and (3) 20 percent or more.

Significant differences ($p < .01$) in per diems were revealed when a one-way analysis of variance was run. The highest per diems ($51.21) were associated with facilities in which 20 percent or more of the residents were classified as having severe behavior problems. Tables 25 and 26 present the analysis of variance summary and tables of means and standard deviations.

Table 25

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents with Behavior Problems

Source of Variation	df	SS	MS	F
Between Groups	2	1754.57	877.29	7.77**
Within Groups	182	20547.74	112.9	
Total	184	22302.32		

** $p < .01$

Table 26

Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents with Behavior Problems

Proportion	Mean	SD	N
Group 1: 0 - 9%	$36.78	8.91	150
Group 2: 10 - 19%	$38.89	9.90	25
Group 3: 20% +	$51.21	15.15	10

14. Ho_{14}: There is no difference in the per diem rate of residential services and the proportion of residents who are not toilet trained.

Facilities were grouped according to the proportion of residents who were not toilet trained: (1) zero to five percent, (2) six to 19 percent, and (3) 20 percent or more. A one-way analysis of variance revealed significant differences ($p < .01$) in group per diems with the highest per diem ($59.47) reported for facilities with 20 percent or more residents who were not toilet trained. The summary of the analysis of variance and tables of means and standard deviations appear in Tables 27 and 28 respectively.

Table 27

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Not Toilet Trained

Source of Variation	df	SS	MS	F
Between Groups	2	3689.85	1844.93	18.04**
Within Groups	182	18612.46	102.27	
Total	184	22302.32		

**p < .01

Table 28

Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Not Toilet Trained

Proportion	Mean	SD	N
Group 1: 0 - 5%	$37.92	9.41	174
Group 2: 6 - 19%	$52.95	22.11	5
Group 3: 20% +	$59.47	16.37	6

15. Ho_{15}: There is no difference in the per diem rates of residential services and the age of residents served.

The last one-way analysis of variance test was run on four categories of residential facilities grouped by age of residents: (1) zero to 12 years, (2) 13 to 20 years, (3) 21 to 40 years, and (4) 41 years or more. Significant differences were indicated. The highest costs ($51.16) were associated with children's facilities; the lowest costs ($33.57) were associated with ICF-MRs serving older populations (41 years or more).

Table 29

Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Age of Residents

Source of Variation	df	SS	MS	F
Between Groups	3	3243.96	1081.32	10.269**
Within Groups	181	19058.36	105.29	
Total	184	22302.32		

$^{**}p < .01$

Table 30

Mean Per Diems of Minnesota ICF-MRs by Age of Residents

Proportion	Mean	SD	N
Group 1: 0 - 12 years	$51.16	15.74	9
Group 2: 13 - 20 years	$44.18	11.92	28
Group 3: 21 - 40 years	$38.65	10.17	109
Group 4: 41+ years	$33.57	7.38	39

IV. COST FUNCTION ANALYSIS

The second objective of this study will be development of an explanation of cost relationships using a cost function approach. A cost function is the testing of statistical relationships between inputs (the independent variables) and cost (the dependent variable) using multiple regression techniques.

Input factors were selected from the results of the first component of this study. The two primary purposes in selecting multiple regression for this study were: (1) to derive the best linear prediction equation from a large set of independent variables, and (2) to evaluate the respective contributions of a specific variable while holding other factors constant within a multivariate context.

Regression Analysis

The dependent measure was per diem cost. Seventeen independent variables were initially entered into the equation, including: (1) region, (2) metropolitan/non-metropolitan location, (3) profit/non-profit status, (4) family operation, (5) system membership, (6) licensed capacity, (7) occupancy rate,

(8) size, (9) number of full-time employees in direct care, (10) proportion of severely or profoundly mentally retarded residents, (11) proportion of residents that needs to be completely fed, (12) proportion of non-ambulatory residents, (13) proportion of residents with severe behavior problems, (14) proportion of residents who are not toilet trained, (15) average age of residents, (16) staff to resident ratio, and (17) years of operation.

Table 31 presents a correlation matrix of the predictors and per diem costs for ICF-MRs. Staff to resident ratio was most highly correlated with per diem cost ($r = .70$, $p < .01$). In descending order of magnitude, per diem cost was correlated with the proportion of residents who were not toilet trained ($r = .55$, $p < .01$) and who need to be completely fed ($r = .51$, $p < .01$). Average age of residents was negatively correlated with per diem cost ($r = -.46$, $p < .01$).

The correlation ratios are in agreement with the analysis of variance results reported earlier in this paper. Higher staff to resident ratios were associated with higher per diems. Higher proportions of non-toilet trained residents were associated with higher per diems. Higher proportions of residents who had to be completely fed were associated with higher per diems. An inverse relationship existed between per diem and average age of residents.

It is obvious that there is some degree of correlation among the independent variables. For example, facilities with higher proportions of non-ambulatory residents or those which serve children may require higher staff complements. All three of these variables are associated with higher per diem rates. The implications are that correlated variables "pick up" and reflect influences exerted by other variables thereby increasing their own apparent "causal" impact upon the dependent variable. The results become mixed because of correlation; readers must, therefore, exercise caution in interpreting these findings and should not point to a single variable as the determinant of per diem variation.

The results of the multiple regression analysis for ICF-MRs suggest that eight variables were statistically significant determinants of per diem rates: (1) staff to resident ratio, (2) number of non-ambulatory residents, (3) years of operation of facility, (4) average age of residents, (5) profit/non-profit status of facility, (6) facility size, (7) family owned and operated facilities, and (8) licensed capacity.

The overall multiple regression analysis accounted for 75 percent of the variance in per diems (multiple $R = .87$). The eight statistically significant variables accounted for 73 percent of that variance and were significant at the $p < .01$ level.

These findings corroborate earlier work by O'Connor and Morris (1978) and Wieck and Bruininks (1980) who reported that factors reflecting dependency level of residents, staff to resident ratio, and age of residents are extremely intertwined with the services provided by the facility and concomitant costs.

TABLE 31
Correlation Matrix of Predictors and Dependent Variable for ICF-MRs

	Per Diem	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Region	.36																
2. Metro/Non-Metro	.37	.75															
3. Profit/Non-Profit	-.09	-.04	.06														
4. Family Operated	.28	.26	.19	-.60													
5. System Member	-.08	-.05	-.11	.15	-.50												
6. Licensed Capacity	-.01	.17	.15	.09	.00	.20											
7. Occupancy Rate	.00	.09	.15	.05	.16	-.24	-.04										
8. Size	-.02	.17	.15	.10	.01	.19	1.00	-.01									
9. FTE Direct Care	.38	.26	.24	-.09	.11	.18	.81	-.10	.80								
10. Staff to Resident Ratio	.70	.28	.31	-.31	.24	-.13	-.04	-.08	-.06	.39							
11. Years of Operation	-.19	-.21	-.13	.13	-.30	.20	.22	-.20	.22	.23	-.01						
12. Severe Profound MR	.25	-.06	-.02	-.08	.03	.01	.03	-.13	.03	.20	.34	.18					
13. Completely Fed	.51	.09	.10	-.10	.05	.12	.18	-.01	.17	.53	.47	.10	.32				
14. Non-Ambulatory	.57	.06	.06	-.08	.08	.14	.19	.01	.19	.52	.42	.05	.35	.86			
15. Severe Behavior Problems	.06	.00	-.02	-.20	.17	-.01	.08	.04	.08	.14	.00	-.04	.03	.05	.12		
16. Not Toilet Trained	.55	.07	.06	-.09	.06	.14	.22	-.02	.22	.59	.46	.12	.36	.96	.91	.10	
17. Average Age	-.46	-.24	-.28	.05	-.24	.18	.05	-.14	.06	-.21	-.40	-.17	-.22	-.32	-.31	.32	-.35

V. SUMMARY OF FINDINGS

Location

There were significant differences ($p < .01$) in the per diems of ICF-MRs located in Minnesota's eleven economic development regions. Mean rates ranged from $31.50 and $31.84 in Regions 6 and 1 to $44.11 in Region 11. Regional variations may be due to general cost-of-living differences, or to differences in the supply and demand of one or more factors of "production" (e.g., labor, capital, and materials).

ICF-MRs located in the seven-county, Minneapolis-Saint Paul metropolitan area (Region 11) have significantly ($p < .01$) higher per diems than those in non-metropolitan areas. These differences may be attributable to cost-of-living differences between urban and rural areas.

Size

A U-shaped relationship between size and per diem costs was found. Facilities serving six or fewer residents and ICF-MRs serving 33 or more residents reported the highest per diems ($41.08 and $42.13, respectively). There was a significant difference ($p < .05$) in per diems by size categories; the per diem differences between facilities serving seven to 12 persons ($35.55) and 13 to 16 residents ($36.66) and the other three sizes were especially significant ($p < .01$ for both). The question of economy of scale for residential services remains unresolved.

During 1979 there were approximately 3,470 persons living in Minnesota's 185 Intermediate Care Facilities for Mentally Retarded; the facilities ranged in size from six to 171. Seventy-five percent (N = 139) of the facilities were licensed to serve sixteen or fewer individuals; they served only 35.4 percent (N = 1,228) of the total resident population. The five largest facilities--averaging 123 residents--had a resident population of 616 persons. For further discussion of facility "size, " see Policy Analysis Series No. 2 (Developmental Disabilities Program, 1981).

Ownership

No significant differences were found between proprietary and non-profit facilities in the single variable analysis (refer to footnote #4, page 24 for multiple regression results). Family-owned and operated facilities reported significantly ($p < .01$) lower per diems ($34.22) than non-family owned and operated agencies ($41.00).

Systems

The results of this study indicate that systems of ICF-MRs operate at a significantly ($p < .05$) higher cost ($40.52) than ICF-MRs not affiliated with a system ($36.37). This result is similar to the findings of the national study by Wieck and Bruininks (1980).

Occupancy Rate

No statistically significant differences were reported in per diems based on occupancy rates. ICF-MRs in Minnesota typically operate at a high occupancy level.

Number of Staff
A positive Pearson correlation coefficient ($r = .39$, $p < .01$) was reported between the number of FTE direct care staff and the per diem.

Staff-Resident Ratio
Statistically significant differences were reported for facilities based on level of staff-resident ratio ($p < .01$). As the staff-resident ratio increases, the per diem also increases in a direct, positive relationship. Per diems ranged from $36.49 for facilities with a .33 staff-resident ratio or less to $64.92 for ICF-MRs with a staff-resident ratio of 1.33 or more.

Years of Operation
The highest per diems ($45.15) were reported by new facilities (two or less years of operation) while the lowest per diems ($33.73) were reported by ICF-MRs which were seven to 20 years old. These differences were statistically significant ($p < .01$).

Class A or Class B
The analysis indicated that the difference between per diems for Class B facilities ($54.55) and Class A facilities ($37.14) was statistically significant ($p < .01$).

Proportion of Severely/Profoundly Mentally Retarded Residents
Facilities that served resident populations in which 40 to 49 percent were severely/profoundly mentally retarded had lower per diems than facilities serving other proportions. Those differences were statistically significant ($p < .01$).

Resident Dependency
There was a positive, direct relationship between dependency level (feeding, ambulation, toilet training, behavior problems) and per diems. ICF-MRs that serve higher proportions of residents who must be completely fed, are non-ambulatory, are not toilet trained, or who have severe behavior problems report higher per diems. The differences in per diems for all of these facilities were statistically significant ($p < .01$).

Mean per diems by proportion of residents who are completely fed ranged from $37.86 (zero to five percent) to $71.38 (40 percent or more); by proportion of non-ambulatory residents, the range was $37.72 (zero to nine percent) to $61.95 (20 to 39 percent). Per diems by proportion of non-toilet trained residents went from a low of $37.92 (zero to five percent) to a high of $59.47 (20 percent or more); for those facilities serving persons with severe behavior problems, per diems ranged from $36.78 (zero to nine percent) to $51.21 (20 percent or more).

Age of Residents
A statistically significant ($p < .01$) inverse relationship exists between average resident age and per diem. ICF-MRs serving children reported the highest per diems ($51.16). Facilities for older populations (41 years or older) reported the lowest per diems ($33.57). Facilities for teenagers (13 to 20 years) and younger adults (21 to 40 years) reported costs of $44.18 and $38.65, respectively.

Multiple Factors

When all of these factors are considered simultaneously, the variables producing statistically significant variations in per diem rates were: (1) staff to resident ratio, (2) proportion of residents who are non-ambulatory, (3) number of years in operation, (4) age of residents, (5) profit/non-profit status,[4] (6) facility size, (7) family owned and operated facilities, and (8) licensed capacity.

Correlation among variables makes all variables important, however, when considering per diem rates in ICF-MRs and when determining policies relative to the operation and regulation of intermediate care facilities for the mentally retarded.

VI. DISCUSSION

This study may have some significance in terms of deinstitutionalization generally, and the Welsch v. Noot Consent Decree specifically. The data presented here and the issue of size must, however, be considered within a context broader than cost. Given this State's commitment to community placement of developmentally disabled persons and its often-stated policy of establishing less restrictive, normalized living environments, the underlying concepts of deinstitutionalization must be considered as well:

- Admissions to public residential facilities should be prevented by finding and developing alternative residential facilities;
- All persons who have been prepared through programs of habilitation and training to function in appropriate community settings should be returned to community residential facilities;
- Residential environments which protect human and civil rights and which contribute to the expeditious return of individuals to normal community living must be established and maintained.

(National Association of Superintendents of Public Residential Facilities for the Mentally Retarded, 1974)

Within this context, it becomes important that policy-makers (and those making decisions about the allocation of public funds) become aware of all the costs of operating a community residential program--the psychosocial and developmental as well as the fiscal (Regional Institute of Social Welfare, 1976).

In a programmatic sense, decisions about facility size cannot be based solely upon dollar costs. Although the literature is not definitive, research indicates that "smaller" community residences are more likely to provide environments which are more culturally normative and more influential in producing gains in adaptive behavior and general developmental growth. Various authors have identified some factors which contribute to the psychosocial/developmental growth of developmentally disabled residents (These factors are more often associated with smaller facilities):

---

[4] The variable "profit/non-profit status" is significant in the multiple regression whereas it is not in the single variable analysis. When the variables are separated, as they are in the multiple regression, the correlation effects on "profit/non-profit" are reduced making the variable statistically relevant.

- individualized attention (Baroff, 1980)
- resident-oriented care practices (Balla, 1976; Baroff, 1980; King, Raynes & Tizard, 1971; McCormick, Balla & Zigler, 1975)
- absences of security features, existence of personal effects, privacy in bathroom and bedroom areas (Balla, 1976; Baroff, 1980)
- community exposure, social interaction (Crawford, 1979; Baroff, 1980)
- experienced, trained direct care staff (Dellinger & Shope, 1978; Baroff, 1980)

The results from this study (again, the reader is advised that the data are from late 1979) indicate that per diem rates are higher for facilities serving six or fewer individuals; lower for residences serving from seven to 12 persons and then increase again as the size of the facility exceeds 12 residents. Another study of group home costs in Minnesota (Department of Public Welfare, 1978) suggested that "smaller" facilities are capable of producing "positive client changes at a better rate than larger ones; and...without significantly higher costs" (p. 75).

Cost is, of course, an important consideration--particularly during times of economic instability. The data from this study suggest, however, that smaller residential facilities are not incompatible with cost considerations; nor are they inconsistent with State policy and the objectives specified in the Welsch v. Noot Consent Decree.

Many factors are involved in establishing and maintaining appropriate community residences (Developmental Disabilities Program, 1981). And while costs are a very real and necessary consideration, they should not overshadow the individual needs of potential residents. As this study points out, there are a number of variables which influence the per diem rates of ICF-MRs--many of those variables are directly or indirectly related to the characteristics of the persons living in those facilities.

REFERENCES/SOURCES

Audit Division. Computer tabulation of Rule 52 Cost Reports. Saint Paul, MN: Department of Public Welfare, Audit Division, December 1979.

Balla, David A. Relationship of institutional size to quality of care: A review of the literature. American Journal of Mental Deficiency, September 1976, 81 (2), 117-124.

Baroff, George S. On "size" and the quality of residential care: A second look. Mental Retardation, June 1980, 18 (3), 113-117.

Crawford, J., et al. Deinstitutionalization and community placement: Clinical and environmental factors. Mental Retardation, July 1979, 17 (2), 59-63.

Dellinger, J. K., & Shope, L. J. Selected characteristics and working conditions of direct service staff in Pennsylvania CLAs. Mental Retardation, February 1978, 16 (1), 19-21.

Developmental Disabilities Program. Policy Analysis Series #2: The Size of Community Residential Facilities: Current Guidelines and Implications for Planning. Saint Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, April 1981 (revised August 1981).

Division of Health Systems. Directory of licensed and certified health care facilities: 1980. Minneapolis, MN: Division of Health Systems, Minnesota Department of Health, March 15, 1980.

DPW Rule 52 Cost Reports (1979) on file in the Audit Division, Department of Public Welfare, Saint Paul, Minnesota.

DPW Rule 52 (12 MCAR 2.052) - Regulations for determining welfare per diem rates for providers of residential services for the mentally retarded. (Revised January 1, 1977, and January 1, 1981).

ICF-MR facilities files: Licensing Division, Department of Public Welfare, Saint Paul, Minnesota.

King, R. D., Raynes, N. V., & Tizard, J. Patterns of residential care: Sociological studies in institutions for handicapped children. London: Routledge & Kegan Paul, Ltd. 1971.

McCormick, M., Balla, D., & Zigler, E. Resident care practices in institutions for retarded persons: A cross-institutional, cross-cultural study. American Journal of Mental Deficiency, July 1975, 80 (1), 1-17.

Minnesota Department of Public Welfare. The relationship of client capacity to client development, client movement and costs in intermediate care facilities (ICF-MR) for the mentally retarded: Final report (Karl W. Heiner, Warren H. Bock, principal investigators). Saint Paul, MN: Department of Public Welfare, MR Program Division. September 1978.

National Association of Superintendants of Public Residential Facilities for the Mentally Retarded. Contemporary issues in residential programming. Washington, D.C.: President's Committee on Mental Retardation, 1974.

O'Connor, G., & Morris, L. A research approach to cost analysis and program budgeting of community residential facilities. Eugene, OR: Rehabilitation Research and Training Center in Mental Retardation, January 1978.

Peat, Marwick, Mitchell, & Co. The financial requirements of normalized residential services and facilities for persons with developmental disabilities. Chicago: Illinois Advisory Council on Developmental Disabilities, April 1976.

Piasecki, J., Pittinger, J., & Rutman, I. Determining the costs of community residential services for the psychosocially disabled. Washington, D.C.: National Institute of Mental Health, 1977.

Profile on MR residents in community residential facilities: fiscal year 1979 (Quality Assurance and Review Program). Minnesota Department of Health, Minneapolis, Minnesota.

Regional Institute of Social Welfare Research. Is statewide deinstitutionalization of children's services a forward or backward social movement? Athens, GA: University of Georgia, U.S. Department of Commerce, NTIS, 1976.

Welsch v. Noot, No. 4-72 Civ. 451 (D. Minn., filed Sept. 15, 1980).

Wieck, C. A. & Bruininks, R. H. The cost of public and community residential care for mentally retarded people in the United States. Minneapolis, MN: University of Minnesota, Department of Psychoeducational Studies, 1980.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Bruce Balow, Ph.D., Chair - Colleen Wieck, Ph.D., Director

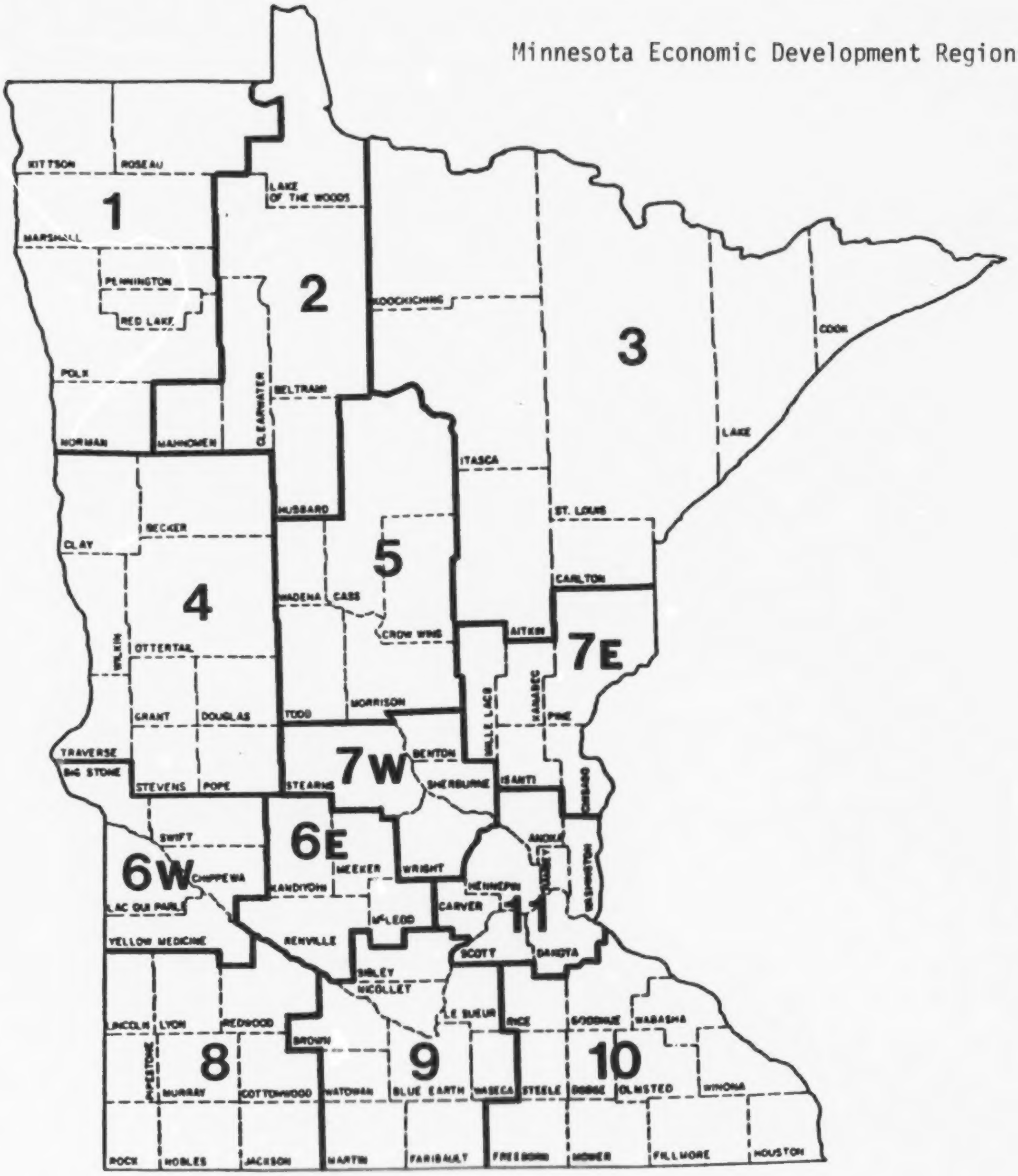
The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem.

The collection of data for this study was completed with the cooperation and kind assistance of Thomas Neumann, Audit Division, Minnesota Department of Public Welfare. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #4: Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development. September 30, 1981.

APPENDIX

Minnesota Economic Development Regions


KITTSON
ROSEAU
LAKE OF THE WOODS
1
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
2
BELTRAMI
KOOCHICHING
3
COOK
LAKE
ITASCA
ST. LOUIS
CARLTON
HUBBARD
BECKER
CLAY
4
5
WADENA
CASS
CROW WING
AITKIN
7E
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
7W
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
6E
ANOKA
RAMSEY
WASHINGTON
6W
CHIPPEWA
KANDIYOHI
MEEKER
WRIGHT
HENNEPIN
LAC QUI PARLE
CARVER
11
YELLOW MEDICINE
RENVILLE
McLEOD
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
RICE
GOODHUE
WABASHA
LINCOLN
LYON
REDWOOD
BROWN
8
9
10
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 5

ADMISSIONS/READMISSIONS TO STATE HOSPITALS SEPTEMBER 1, 1980 to MAY 31, 1981: THE BEHAVIOR PROBLEM ISSUE

I. INTRODUCTION

Under the provisions of the Welsch v. Noot Consent Decree, the State is required to reduce the number of mentally retarded persons residing in state hospitals to no more than 1,850 by mid-1987; 2,375 by July 1983. There are approximately 2,500 individuals with mental retardation currently residing in Minnesota's eight state hospitals.[1]

While setting specific goals for deinstitutionalization may hasten the relocation of many individuals, it also highlights critical issues. Among these is the need to develop appropriate community residences, services and programs for persons with severe or profound retardation, individuals with behavior problems or residents in need of health and medical care. The further success of deinstitutionalization efforts will depend greatly upon the State's ability to develop and maintain alternative community living arrangements for persons most in need of prolonged and intensive residential programs.

> "Deinstitutionalization does not simply involve the placement of mentally retarded persons into the community, it also involves the establishment of those programs intended to reduce the need for initial admission and readmission."
>
> (Scheerenberger, 1981, p. 6)

The literature indicates that behavior problems are a major reason for admissions/readmissions to public institutions. Similarly, an analysis of state hospital admission reports indicates that behavior-related problems are a primary reason for admissions in Minnesota. Therefore, if admissions to state hospitals are to be avoided, the behavior management skills of families and community service providers must be further developed.

The purpose of this paper is to:

--briefly review literature related to behavior problems and movement trends;

---

[1] The state hospital at Anoka does not have a mental retardation program. During a special session of the 1981 Legislature, a bill was passed which calls for the closing of Rochester State Hospital by June 30, 1982. Administrators of that hospital anticipate that all residents will be transferred or relocated and the facility closed by January 1982. There are approximately 80 mentally retarded persons currently residing at the hospital.

DEVELOPMENTAL DISABILITIES PLANNING • DEPARTMENT OF ENERGY, PLANNING AND DEVELOPMENT
201 CAPITOL SQUARE BLDG. • 550 CEDAR STREET • ST. PAUL, MN 55101 • 612/296-4018

- --present a summary analysis of admission/readmission reports from the eight state hospitals; and
- --identify implications for state policy and planning relating to the development of community residential services.

II. REVIEW OF THE LITERATURE

Several studies have identified maladaptive behaviors and health problems as the major reasons for readmissions and community placement failures (Mayeda & Sutter, 1981; Pagel & Whitling, 1978; Sutter, Mayeda, Call, Yanagi & Yee, 1980; Keys, Boroskin & Ross, 1973). Other research indicates that individuals' abilities in self-help and social skills are not always predictive of placement potential. Sutter et al (1980) found that the relative sophistication of the unsuccessful persons in self-help and social skills could not, in many cases, overcome the negative impacts of maladaptive behavior; and in fact, individuals who failed in community placements "were significantly more proficient than were successful clients in personal and community self-sufficiency and in social responsibility" (p. 264). In another study, Pagel and Whitling (1978) concluded that failures were not typically attributed to deficits in self-help skills.

The problem then is how to control and/or effectively manage behavior problems in community settings. Part of the answer may lie in the placement process itself. Mayeda and Sutter (1981) suggested that the compatibility between an individual's behavioral characteristics and the caregiver's expectations regarding the management of behavior problems may be of some consequence. The findings from their study suggested that "...even clients with a large number of behavior problems (five or more per client) could be successful in community care if placed with care providers who indicated a willingness to manage the behavior they exhibited" (p. 380). In an earlier study (Sutter et al, 1980), researchers concluded that caregiver-client pairs that were unsuccessful were notably more mismatched for maladaptive behavior than were the successful caregiver-client pairs.

Lakin, Bruininks and Sigford (1981) stated similar conclusions. They suggested that policy-makers consider developing a system whereby clients' characteristics are matched with caretakers' "tolerances" for those characteristics. Moreover, "...researchers need to address the effectiveness of training programs...in enhancing caretakers', and potential caretakers', tolerance of and effectiveness in dealing with specific client behaviors" (p. 400).

The current review of the literature indicates that level of retardation is not consistently indicative of failure or success. For instance, one study (Sutter et al, 1980) found that 63 percent of the successfully placed individuals were classified as severely or profoundly mentally retarded, while 71 percent of those who "failed" in community placements were borderline, mild or moderately mentally retarded. It is true nonetheless that persons with severe or profound mental retardation are less likely to be placed in community settings; that they are more likely to "fail" because of health-related problems than for maladaptive behaviors (Eyman & Call, 1978; Pagel & Whitling, 1978; Landesman-Dwyer & Sulzbacher, 1981).

In 1979 Scheerenberger (1981) surveyed 278 public residential facilities in the United States. He estimated that 77.4 percent of the residents of those facilities were severely or profoundly retarded. Although the total population of institutionalized persons is gradually declining (on a national basis, the average daily population decreased approximately four percent annually during the years 1972 to 1979), barriers to community placement remain formidable. Scheerenberger described these barriers in terms of seven factors:

--availability of alternative living facilities;
--quality of available community living facilities;
--availability of community support services;
--quality of community support services;
--funding;
--number of community program personnel;
--adequacy of training.

While medical services, the availability of community support services and educational programs were generally rated as being adequate for mildly and moderately retarded students, the same services for severely and profoundly retarded persons were considered to be less than adequate (at the time of the national survey, Public Law 94-142 was relatively new). Scheerenberger noted that "adult programming and behavior management, regardless of retardation, were basic services uniformly judged inadequate throughout the country" (p. 8).

Scheerenberger's study indicated further that the training of professional personnel (in medicine, education and adult programming) was considered to be inadequate to meet the needs of more severely handicapped individuals; and behavior management personnel generally lacked "sufficient training to deal effectively with mentally retarded individuals regardless of their level of intelligence" (p. 10).

All of this suggests that, unless substantial changes are made in the focus and delivery of community services, public institutions will continue to be the primary treatment sites for persons with severe/profound mental retardation and individuals with behavioral or medical problems (Scheerenberger, 1981; Landesman-Dwyer & Sulzbacher, 1981); hence the rate of deinstitutionalization will decrease.

Successful deinstitutionalization implies more than placement in community settings. How individuals adapt to those environments is equally important--"adaptation" is not necessarily synonymous with "normal" behavior. Seltzer, Sherwood, Seltzer and Sherwood (1981) suggested that persons should be assessed on an individual basis. This concept has particular relevance for persons who are severely or profoundly retarded since they may not, in many respects, be able to measure up to "normal" standards. Instead, success should be measured in relative terms: how well or how much an individual improves and adapts to a particular environment.

This concept of community adaptation is important for two reasons: (1) it lifts much of the "blame" for community failure from the shoulders of the retarded person because he/she need no longer measure up to unrealistic standards of "normalization"; and (2) it may help encourage persons in the community to recognize relative improvement as genuine achievements rather than as failures to reach absolute levels of performance.

> "As the population being released from institutions increasingly consists of the "hard to place" (including retarded persons who are medically fragile, multiply handicapped or elderly, those with severe behavior problems, and the more severely and profoundly retarded), an analysis of the effects of deinstitutionalization on these types of individuals becomes more and more important. Because the needs presented by these types of persons are very complex, it cannot be casually assumed that deinstitutionalization will produce the uniformly positive effects hoped for..."
>
> (Seltzer et al, 1981, p. 86)

A study of deinstitutionalization must necessarily include a review of state hospital admissions and readmissions. It seems logical that before problems can be ameliorated and institutional admissions avoided, program planners and policy-makers must first know what kinds of behavioral problems exist, and then, why persons are being referred to state hospitals. The following analysis is an initial step toward identifying these two important policy variables.

III. METHODOLOGY

This analysis of admissions/readmissions is based upon a review of state hospital reports on file in the Department of Public Welfare, Mental Retardation Program Division. Inasmuch as admission reports from the individual hospitals vary greatly in content, quality and format, this is a summary analysis of admissions and readmissions and the circumstances leading to placement in a state hospital.

This analysis covers the nine-month period from September 1, 1980 to May 31, 1981. The Welsch Decree--which restricts admissions to state institutions--went into effect September 15, 1980.

Much of the summary data contained herein does not include admissions to Cambridge State Hospital. Admission files from that hospital report only aggregate data; information on individuals and the circumstances surrounding admissions was not available. Cambridge, which entered into a separate consent decree in December of 1977, became subject to the provisions of the Welsch Decree on July 1, 1981.

For the purposes of this analysis, an admission was classified as "behavior related" if maladaptive behavior or behavior problems were cited within the report. Although admission reports varied greatly in content and quality, at least an indirect relationship between behavior and state hospital placement could be inferred when behavior was mentioned.

An example of a behavior-related admission might be an individual in need of health or medical care services; community facilities were unable to provide the necessary services because they could not, at the same time, deal with the person's behavior problems. In many cases behavior-related admissions were more obvious, e.g., individuals admitted to a hospital for evaluation or programming following incidents of aggression or property destruction.

IV. RESULTS

During the nine-month period from September 1, 1980 to May 31, 1981, there were approximately 120 admissions/readmissions to Minnesota's eight state hospitals. The admissions ranged from a low of two at Rochester State Hospital to a high of 34 at Cambridge. Admission reports indicated that, where specified (N=78), 41 percent were "new" admissions (i.e., the report classified an admission as being "new"; in almost all cases it was not possible to determine if an individual had been institutionalized in the past at another hospital), while 59 percent were "readmissions" (i.e., the report indicated that the individual had resided at the hospital at least once before--includes prior short-term, respite care admissions). In 42 instances the reports did not specify whether the individual had been released from the hospital before or if it was a first-time admission.

Table 1

Admissions to Minnesota's Eight State Hospitals
September 1, 1980 to May 31, 1981
(total admissions = 120)

Admission Status	N	%
New Admission	32	41.0
Readmission	46	59.0
Unspecified	42	--
Total	120	

Personal Characteristics

Most reports did not identify the MR characteristics of the individuals being admitted. No psychometric data were indicated in the 34 admission reports from Cambridge; and of the remaining 86 reports from the other seven hospitals, only 17 indicated an individual's level of mental retardation. State hospital social work representatives (MR Admissions Evaluation, 1981) estimated that 63 percent of all persons admitted during calendar year 1980 were severely/profoundly mentally retarded; 23 percent moderately retarded; and 14 percent mild/borderline. They also estimated that nearly 80 percent of respite care admissions were readmissions; one-third of all other admissions were readmission; and one-third of all court commitments were readmissions.

Table 2

MR Characteristics of Persons Admitted to Minnesota State Hospitals
September 1, 1980 to May 31, 1981
(total N=86; respondents=17)

Degree of Mental Retardation	N	%
Profound (19 and below)	1	5.9
Severe (20-35)	5	29.4
Moderate (36-51)	4	23.5
Mild (52-68)	6	35.3
Borderline (69-84)	1	5.9
Total	17	100.0

Reports from Cambridge did not identify any individual characteristics of persons admitted to that hospital during this nine-month period. Admission reports from the other hospitals (total N=86) indicated the following resident characteristics:

Age:	N=60	Sex:	N=86
	Range=2 to 59 years		Female=25 (29.1%)
	Mean=26.1 years		Male=61 (70.9%)

Twenty-three (23) out of 86 reports indicated that an individual had an additional disability; several were multiply handicapped (mean=1.3 disabilities --in addition to MR).

Place of Prior Residence

While some reports indicated the type of most recent residential placement (i.e., the community placement from which the individual was admitted), many did not specify how long the person had been living in that residence. Where it was specified (N=30), the range was from three months to 16 years; the mean was 3.8 years.

Table 3 shows admissions to each state hospital during the nine-month period ending May 31, 1981. The table indicates admissions by type and the setting from which individuals were admitted. Respite care--an informal admission--constituted 42.5 percent of all admissions. Thirty-nine percent (39.2%) of all admissions (N=120) came from an ICF/MR.

Disregarding the ten admissions to Cambridge (for which no detailed information is available), 21 (81%) of the 26 admissions from natural or adoptive homes were classified as respite care/parental relief admissions.

Examples of "other public institutions" in Table 3 would include the Braille and Sight Saving School at Faribault or another state hospital (most likely a transfer).

Table 3

Admissions to State Hospitals by Facility, Type and Prior Residence
September 1, 1980 to May 31, 1981
(total admissions = 120)

	BRAINERD	CAMBRIDGE	FARIBAULT	FERGUS FALLS	MOOSE LAKE	ROCHESTER	ST. PETER	WILLMAR	TOTAL	
Type of Admission									N	%
Informal	2	5	11	6	3	1	3	3	34	28.3
Court Committed	5	5	1	0	0	0	0	0	11	9.2
Transfer In	0	1	1	1	0	0	0	1	4	3.3
Respite	9	19	5	8	0	1	3	6	51	42.5
Return from P.D.[2]	1	4	2	0	1	0	0	0	8	6.7
Emergency Hold	6	0	1	0	1	0	2	2	12	10.0
Total	23	34	21	15	5	2	8	12	120	100.0
Type of Admission									N	%
New Admission	4	16	4	7	0	0	0	1	32	26.7
Readmission	8	18	14	3	1	0	1	1	46	38.3
Unspecified	11	0	3	5	4	2	7	10	42	35.0
Total	23	34	21	15	5	2	8	12	120	100.0
Admitted From									N	%
Parents/Relatives	8	10	3	8	0	0	1	6	36	30.0
Foster Home	1	6	2	0	1	0	1	0	11	9.2
Board/Group Home	10	9	10	5	3	2	4	4	47	39.2
Nursing Home	0	0	0	0	1	0	0	1	2	1.6
Other Pub. Inst.	0	5	3	2	0	0	1	1	12	10.0
Community Hosp.	0	3	2	0	0	0	0	0	5	4.2
Out-of-State Fac.	1	1	1	0	0	0	0	0	3	2.5
Unspecified	3	0	0	0	0	0	1	0	4	3.3
Total	23	34	21	15	5	2	8	12	120	100.0

---

[2] Provisional Discharge

Behavior Problems

Table 4 is an analysis of admissions and behavior problems. The table does not include admissions to Cambridge State Hospital. The remaining admission reports (N = 86) specify behavior or behavior-related problems in almost two-thirds of the cases (64.0%); 33.7 percent made no mention of behavior-related problems; and in two instances, no reason for admission was stated.

Table 4

State Hospital Admissions: Behavior Problems
September 1, 1980 to May 31, 1981
(total N = 86)

All Admissions	N	%
Behavior-related	55	64.0
Not Behavior-related	29	33.7
No Reason Specified	2	2.3
Total	86	100.0

Table 5 is an analysis of "readmissions"--but does not include the 18 individuals readmitted to the hospital at Cambridge. Nineteen (19) out of 28 reports classified as readmissions cited behavior problems (67.9%); four of those 19 were respite care admissions. Nine "readmissions" were not specifically attributed to behavior problems; seven of those nine were classified as respite care admissions.

Table 5

State Hospital Readmissions: Behavior Problems
September 1, 1980 to May 31, 1981
(total N = 28)

Readmissions	N	%	Classified as Respite Care	N	%
Behavior-related	19	67.9		4	21.1
Not Behavior-related	9	32.1		7	77.8
Total	28	100.0		11	39.3

Admissions from ICF/MRs

The following summary analysis of ICF/MR admissions does not include Cambridge State Hospital. Reports from that hospital give only total admission figures and do not specify licensed capacity or months of residence in a group home. Of the 34 persons admitted to Cambridge during this nine-month period, nine (26.5%) came from an ICF/MR.

ICF/MR Characteristics

Admission/readmission reports from the other seven hospitals (N = 86) indicate that an ICF/MR was the most recent place of residence for 38 individuals (44.2%). In seven (7) instances, no descriptive characteristics of the ICF/MR were identified.

Table 6

Admissions from ICF/MRs: Size Characteristics
September 1, 1980 to May 31, 1981
(total N = 38; respondents = 31)

Licensed Capacity	Mean	SD	N	%
1 - 6 Residents	6.0	0.0	3	9.7
7 - 16 Residents	12.7	2.7	17	54.8
17 - 32 Residents	30.0	0.0	2	6.5
33+ Residents	69.5	41.9	9	29.0
Total	29.7	34.4	31	100.0

The licensed capacity (size) of the 31 ICF/MRs ranged from six to 171; the mean was 29.7. Sixty-six percent (20 individuals) lived in facilities with licensed capacities of 15 or less; nearly one-third (9 persons) had resided in a group home licensed to serve 15 persons.

Only 19 of the 38 admission reports indicated how long an individual had been living in a group home prior to admission. Where specified (N = 19), the length of residency in an ICF/MR ranged from three months to eight years; the mean was 25.0 months. Sixty-three percent (12 persons) had resided in those placements for 14 or fewer months.

Behavior Problems

Of the 38 admission reports on individuals coming from an ICF/MR placement, 30 (78.9%) specifically mentioned behavior problems. Thirteen (13) reports identified an individual as having been a resident of a hospital at least once before; 92.3 percent of these readmissions were behavior-related--only one of the 13 readmissions was for respite care purposes.

Twenty-two (22) reports did not specify if an individual had been released from the hospital before or if it was a first-time admission. Sixteen of the 22 (72.7%) were behavior-related; six reports made no mention of behavior problems. Three of the 16 behavior-related admissions (18.8%) in the unspecified category were classified as respite care.

Table 7

State Hospital Admissions from ICF/MRs
September 1, 1980 to May 31, 1981
(total N = 38)

Admissions	N	%	Classified as Respite Care N	%
New Admissions				
Behavior-related	2	66.7	0	0.0
Not behavior-related	1	33.3	0	0.0
Readmissions				
Behavior-related	12	92.3	1	8.0
Not Behavior-related	1	7.7	0	0.0
Unspecified				
Behavior-related	16	72.7	3	18.8
Not Behavior-related	6	27.3	1	16.7
All ICF/MR Admissions				
Behavior-related	30	78.9	4	13.3
Not Behavior-related	8	21.1	1	12.5
Total	38	100.0	5	13.2

Reasons for Admissions

The following is a synopsis of the statements most often cited as reasons for seeking an admission to a state hospital. The narrative is neither definitive nor exhaustive, rather it attempts to convey a sense of the circumstances and pressures which compel a family, a group home or a community facility to place an individual in a state hospital.

In many cases there appears to be no single reason for admission, but a combination of factors. Though there is much overlap and ambiguity in admission reports, one thing seems apparent: to many families or community facilities, the state hospital is (or is perceived to be) the only available resource.

Respite Care Admissions

Admissions classified as respite care/parental relief accounted for the largest number of admissions during the nine-month period from September 1, 1980 to May 31, 1981. The reasons for those temporary placements were numerous and varied. Quite often, respite care admissions were more than simple, short-term relief from care responsibilities--they were coupled with requests for evaluation, intensive training or medical and health care services.

In many instances, reports indicated that appropriate respite care services could not be located in or near the community; behavior problems made continued residence in the home difficult and very often precluded the use of community services--if those services existed. The inference is that "appropriate" meant either a sitter capable or willing to care for a retarded child, or a respite care program with staff proficient in behavior management skills.

In three instances an admission report stated that medical care was the primary reason for seeking state hospital/respite care placement. Either the group home or family could not provide the necessary medical care--and alternative community services were not available--or behavior problems complicated attempts to provide those services.

In nine cases a family or group home sought respite care because they could not control an individual. Seven of the nine admissions seeking evaluation were associated with behavior problems. In two instances an individual had struck out at or otherwise threatened the staff or other residents. Other reports indicated a need for respite care with intensive training in personal care skills. Two reports indicated that respite care admissions were sought because there were no vacancies in other community facilities, e.g., group homes.

Family emergencies were the most frequently cited reason for requesting a respite care admission--all of these admissions (N = 11) were from family settings; only one specifically mentioned behavior problems. Reasons included: family trips or activities, recent or prolonged hospitalization of a parent, illnesses in the family, unavailability of community respite care services.

Other Informal Admissions

Nearly all reports which identified an admission as informal (N = 29; does not include informal respite care admissions) indicated that an individual had exhibited behavior problems. Generally, the behavior problems were of a more severe nature. Examples include: self-abusive/injurious behaviors, tantrums, incidents of aggression/assault against staff or other residents, property destruction. In some cases behavior problems were exacerbated by an individual's lack of self-care skills or by multiple handicaps.

The reason most frequently cited in an informal admission report was the family or group home staff's inability to control an individual. Either the individual's behavior was disruptive to the environment or the behavior presented a risk to other residents, the individual him/herself, the staff, or property--e.g., knife-throwing, physical aggression, suicide attempt, or destruction of furniture.

Seventeen out of 29 (59%) informal admission reports specifically mentioned a lack of appropriate alternative community placements. (Again, the implication is that "appropriate" means capable of managing behavior-related problems.) Among the reasons for referring an individual to a state hospital were: the inability of family or staff to place an individual elsewhere in the community; the need for services or programming not available in the community (e.g., SNF care); the need for care and supervision while community placements were located.

Medical or specialized supervision was a major reason for several informal admissions. Reports indicated that local facilities were either unwilling or unable to provide services to persons with medical and health care needs. In most cases continuing care in a particular setting was deemed inappropriate because an individual exhibited behavior problems. For example, a hospital or nursing home might be unwilling to provide post-surgical medical care on a long-term basis because they could not, at the same time, provide the necessary supervision. In other instances, individuals (because of recent surgery, suicide attempt, or deteriorating physical conditions) were referred to a state hospital for an evaluation of care needs. Generally, admissions in this category came from a nursing home, a community hospital or a group home.

Committed

All six of the admissions identified as "committed" indicated that the individual had come from a group home. In four cases, the admission report stated that the group home had closed--only one of those four reports mentioned any behavior problems. In the remaining two cases, both reports indicated behavior problems as well as the unavailability of alternative community placements or services.

In these three instances, behavior problems were characterized as being severe. Additionally, the individuals required considerable attention with regard to personal care.

Returns from Provisional Discharge

Four persons were readmitted following a return from provisional discharge. Three were admitted from group homes; the other placement was unspecified. Three of the four were identified as having severe behavior problems: disorderly conduct, assault, aggressive behavior, criminal damage to property, temper tantrums, threats of suicide. One report indicated only that placement in an out-of-state group home had not worked out. One report stated that there had been a lack of day programming.

Hold Orders

Twelve individuals were admitted on hold orders. Nine reports indicated that the individuals had been admitted from an ICF/MR--two reports did not specify the most recent placement; one was admitted from the family home.

Eleven of the twelve reports indicated that behavior problems were severe; that other residents, staff or property were threatened by an individual's behaviors: physical threats, acts of aggression/assaultive behaviors, firesetting, physical abuse, property destruction.

Among the reasons stated for seeking admission to a state hospital were the staff's inability to control an individual's behaviors, the need to avert more serious episodes of physical aggression or property destruction, lack of existing community facilities which were capable of providing the necessary services and supervision.

Transfers

Admissions classified as "transfers" indicated that the individuals were being moved in order that they might be closer to their family or, in the case of a transfer from Anoka State Hospital, to obtain more appropriate programming.

V. DISCUSSION

Although this analysis of admission reports is not totally conclusive, it does give some indication of the nature of admissions; it also raises some important issues.

It is apparent that many families and community care providers rely upon state hospitals for respite care services. Approximately 80 percent of the admissions from family homes were for parental relief. The admission reports suggest that had those services been available in the community, many of these short-term informal admissions might have been avoided. Social work representatives from the mental retardation programs of the state hospitals (MR Admissions Evaluation Report, 1981) estimate that one-half of all admissions during 1980 were for respite care purposes.

Nearly 60 percent of the informal admissions (other than respite care) specifically mentioned a lack of appropriate community services. Additionally, several reports indicated that community support services (e.g., nursing homes, community hospitals) could not manage or would not accept persons with behavior problems. This is similar to Scheerenberger's findings (1981) which indicate that behavior management skills are generally lacking in community settings.

A significant proportion of the admissions (39%) came from group homes. The literature suggests that smaller facility size is more indicative of personalized attention, and yet data from the admission reports suggest that perhaps as many as two-thirds of these admissions came from relatively small ICFs, i.e., 15 or fewer residents.

It is likely that some characteristics of the service delivery system contribute to the failure of some of the community placements. For instance, a national survey of community residential facilities in 1977 identified personnel issues--recruitment, retraining and development of staff--as major management problems (Bruininks, Kudla, Wieck & Hauber, 1980). Discontinuity in staffing patterns and inadequately trained personnel will have some impact upon the success or failure of many community placements.

The distinction between providing services and meeting individuals' needs must be recognized. As Lakin, Bruininks and Sigford (1981) suggest, "care" and "services" are not necessarily synonymous terms:

> "It is essential to assess what services are needed by clients, regardless of whether or not they are available in the area in order to measure "need." (Assumptions about who can benefit from what kinds of services must be made explicit.) (p. 407)."

The Welsch Decree formally acknowledges this concept. By the terms of the agreement, the annual, required assessment of hospital residents is to be made "in terms of actual needs of the resident rather than in terms of services presently available." Furthermore, individual counties and the Commissioner of Public Welfare are to use these "assessments in planning for and implementing the reduction in institution population...and in developing plans for new residential and non-residential county based services" (Welsch v. Noot Consent Decree, 1980, p. 6, paragraph 21).

VI. IMPLICATIONS FOR PLANNING

Planning for community programs and services must consider, among other things, the relative needs of two particular populations residing within public institutions: (1) mildly and moderately mentally retarded persons who have behavior problems; and (2) persons who are severely or profoundly retarded.

Eyman and Call (1978), among others, have shown that a significantly larger number of mildly and moderately retarded persons in institutions have severe behavior problems than do mildly and moderately retarded individuals living in the communities. Because they function at relatively higher levels than do other persons in institutions, they are considered more likely candidates for community placement. Their successful placement, however, will depend upon the behavior management capabilities of individual service providers in the community.

Severely and profoundly retarded persons have traditionally been difficult to place into community residences. Although persons who are severely or profoundly mentally retarded may represent a relatively small proportion of the total MR population, they constitute a significant proportion of those in need of lifelong services; and an increasing percentage of individuals in public residential facilities (Landesman-Dwyer & Sulzbacher, 1981; Scheerenberger, 1981). And yet if deinstitutionalization is to be considered successful communities must develop services and residences geared toward serving these individuals. While the challenges presented by these two groups of persons may be formidable, they are not insurmountable.

Minnesota is heavily reliant upon ICF-certified programs but other models do exist. These alternatives merit consideration for two reasons: (1) in addition to being sound programmatically, they may be cost effective relative to institutional care; and (2) they may inject more variability into a system which is being asked to accommodate a very heterogeneous population of individuals. Some possible alternatives for addressing the needs of behavior problem clients might include:

- Building capacity within existing programs (Bruininks, et al, 1980; Scheerenberger, 1981).
  An example might be an increase in the use of specially trained foster care homes. To date, Minnesota has not made extensive use of foster care models. Another example might be use of existing group homes with specially trained staff persons.

-Developing specialized services and using existing resources to better advantage, e.g., community mental health centers and state hospitals. A report by the Chesterfield (VA) Mental Health and Mental Retardation Services (1979) cites several behavior modification programs which work concurrently with clients and family. One approach is to link respite care at state hospitals (which includes evaluation and behavior modification programming) with parental visits and training in behavioral techniques.

-The same report, and many others (e.g., Wray, Browne & Koster, 1978), suggests the efficacy of crisis/home intervention teams. Again, the emphasis is upon parent training in conjunction with behavioral modification programming. Problem resolution in the home is an essential component of these models.

-Several authors suggest greater attention be given to placement strategies. Potential for success is much greater where facility staff are more willing and able to deal with disruptive behavior problems (Mayeda & Sutter, 1981; Sutter et al, 1980). Pre-service and in-service training for residential staff persons is a primary consideration.

-Adoption of a zero rejection model will facilitate community placement and the development of alternative services. Implicit in this model is the concept that no one will be rejected simply because they manifest difficult placement problems. Instead, counties, communities and caregivers adopt a positive attitude about providing necessary services. Institutionalization is considered only after all other alternatives have been rigorously explored and thoroughly exhausted. The major advantage of this model is that counties and communities "learn" not to rely upon state institutions, but rather upon their own initiatives and resources.

Finally, the following excerpts are from a paper on behavior problems and institutionalization.[3] They summarize a variety of programmatic and philosophical approaches to behavior management and the reduction of institutional admissions:

> "PHILOSOPHICAL ORIENTATION. To assure the availability of a comprehensive array of community based residential and habilitative services for persons in need of supportive residential living, good leadership and a dogged commitment to successfully creating such a system is required. Staff have to be resolved to keep the "IN" door to the institution barred but to not deny services for persons in need. This means that

---

[3] The excerpts are from an unpublished paper written by Jerry Leismer entitled Prevention of Institutional Admissions and Returns: Especially Those Due to Client Behavioral Difficulties (July 29, 1981). Mr. Leismer is the court-appointed master in the Michigan "Plymouth Case."

By order of the U.S. District Court, the Michigan Department of Mental Health, and others, are to develop and implement "a comprehensive system of appropriate, less restrictive habilitative training, and support services" for all residents of the Plymouth Center for Human Development by Janaury 1, 1984.

These excerpts are printed with permission of the author.

staff are going to have to be tenaciously solution-oriented rather than problem-oriented. Instead of regretfully accepting someone in the front door to the institution "because of a problem," staff must aggressively pursue alternative means for addressing the client's, family's, or provider's particular needs which resulted in a knock on the door. This also means that state or county agencies will have to increase their awareness of and sensitivity toward responding realistically to the major needs perceived by community providers...

AN ONGOING RATE OF DEVELOPING COMPONENTS FOR THE COMPREHENSIVE ARRAY OF COMMUNITY SERVICES must be established to accommodate both current needs (deinstitutionalization) and future needs (requests for new admissions or returns). This entails generating an adequate continuum of supervised to relatively independent residential alternatives to be able to address the varied needs of persons seeking assistance. To do so would contraindicate complete reliance on only foster care or group homes or apartment programs. A combination of options will help prevent the incidence of persons who "wouldn't fit" into a more limited number of established molds.

There is significant value in knowing the needs of the persons awaiting the opportunity for community living and then proactively developing/recruiting/training providers specifically expected (and expecting) to work with these persons...Proactive development of particular types of residences based on the particular needs of the clients is the only way to assure community living opportunities for all persons in wheelchairs or with adaptive needs. Various types of supports for natural families should not be overlooked as one of the tools for precluding the need for an alternative residence. It should be noted that the larger the number of community living alternatives that evolve, the greater the capacity of that system to absorb new persons with residential needs into existing vacancies and to accommodate more intense (i.e., behavioral) needs...

ADEQUATE FUNDING is required to assure adequate opportunities and support for persons who are community-placed. So often there is a very large gap between what persons consider a reasonable amount to spend for institutional care and what they consider acceptable for community based homes...To the extent that community living can be developed to provide a more normalized, personal, and appropriate quality of life, greater parity in funding between the institution and the community is warranted...

There needs to be a sensitivity toward providing varied costs based on the degree of needs of respective clients. There is no better way to assure that more challenging clients will not have the opportunity to successfully leave an institution than by providing a flat rate or a rate with limited flexibility to buy services for a very heterogeneous group of individual clients...

SIZE OF THE RESIDENTIAL SETTING may be a factor influencing interpersonal relations, the hominess of the setting, and how acceptable the neighbors find the home...

...there is greater potential for clients to identify (and emulate) significant role models in the smaller adequately staffed homes than in larger residential settings. Staff activities tend to be more client-oriented and the potential for consistency in implementing techniques for behavioral programs (teaching new behaviors or ameliorating other behaviors) is increased with smaller numbers of staff and residents interacting. Also, the smaller the number of clients in a setting with adequate staffing, the smaller the apparent diffusion of responsibility for dealing with individual client needs...

ADEQUATE STAFFING AND STAFF TRAINING are essential to allow especially those clients with larger repertoires of challenging behaviors to successfully live in normalized home environments.

...to preclude some persons from being forced to leave the home established, it will be necessary for all staff to go through pre-service training and for some to receive specialized training in behavior modification and behavior management...Training should be geared toward client-specific needs and challenges...

...Tied to the provision of adequate staffing is the provision of adequate pay and benefits for staff in the community settings...Again, the issue of parity needs to be considered here to assure the ability to attract and retain an adequate number and quality of trained staff to run good programs.

ADEQUATE SUPPORT SERVICES are essential for a viable community service system. Predominant among such supports is a good case management, follow-along system...

[Other support services might include]...a crisis center hotline with on-call staff available to "trouble-shoot" problems which arise when the provider can't reach the case manager...[or] Peer groups for providers can be established either with foster care families or with group homes and apartment program administrators...

An additional type of support...is the "trainer-in-the-home" program. This program can provide...for a staff member to go into a natural family's home if a behavioral crisis arises with which they need assistance. The "trainer" would work both with the client and the family...

AMPLE AGE-APPROPRIATE/NEED-APPROPRIATE DAY PROGRAMS (geared toward the individual needs of clients) can enhance social, emotional, and adaptive development. Whether good school programs, good activity programs, good pre-vocational (or vocational) programs, or competitive employment, a meaningful day program is important to foster growth, to enhance clients' self-image, and to provide appropriate means for spending time...

MEANINGFUL INVOLVEMENT WITH COMMUNITY ACTIVITIES is important. Much of the inappropriate behavior which occurs happens because of a lack of appropriate ways for clients to spend time or to address quite normal needs. If there isn't something appropriate, interesting, or meaningful to be involved with or to expend...energy on or to satisfy... curiosity, some persons may seek another way to stimulate or to entertain themselves or to expend their energy...

APPROPRIATE HOME PROVIDERS...The quality of the providers will determine the capacity of the community to appropriately address the needs of all of its residents...

Providers need to be clearly geared toward client-specific needs. Staff assisting clients who are blind, deaf, non-ambulatory, not toilet trained, self-abusive, aggressive, etc., will need special training and additional support...If caretaker preference is related to client success, then caretakers need to be developed who are desirous of and capable of addressing more intense client characteristics.

...For the community system to work, community providers must also have a commitment that they are "going to make it work for all clients!"

EFFECTIVE INDIVIDUAL PROGRAM PLANS...To the extent that any setting aspires to be growth-enhancing rather than merely custodial or incidentally developmental, it is helpful to have (and to assure some program accountability through) individualized methodologies with which to deal with prioritized client-specific needs. The more limited in adaptive abilities or more difficult the behaviors presented by a particular client, the more essential an Individual Program Plan is as a supportive guide for staff (and support service staff) in assuring that such clients can be absorbed into community systems...

Linked to the quality of the Individual Program Plans is the availability of the interdisciplinary team and/or consultant support staff to respond to a crisis or to a difficult situation which may arise in a community home.

RESPITE. One of the most critical factors which can impact on requests for new institutional admissions or returns is the ready availability of respite services. It has been stated that "temporary help at the right time" can prevent a situation from deteriorating to such a point that long-term care is sought out by natural families. Similarly, some form of relief or respite is extremely valuable in preventing some foster providers...or group home providers from "burning out"...

It has been estimated that six respite slots may prevent from 6-20 admissions or returns a year. Given these potential advantages, efforts should be vigorously pursued to eliminate the financial and other disincentives that prevent ample development of respite care options.

INSTITUTIONAL PROGRAMS TO AID CLIENT TRANSITION INTO COMMUNITY PROGRAMS

There are a large number of activities which an institution can engage in to foster the eventual assimilation of clients into community programs and to reduce any potential for transfer anxiety. Such activities include, but are not limited to: (1) the holding of small group meetings of residents on campus where the same six-to-eight persons meet regularly to discuss common interests...(2) a Life Book can be put together which consists of a client's scrap book with photos and/or pictures of the client and his/her family, friends, and roommates at various points in his/her life and at various places where he or she has lived...which provides a sense of being part of a continuum... (3) toileting programs are always good for clients to be involved with because staff are always more willing to assume responsibility for a client with toileting skills than one without. (4) Increasing exposure to the community with field trips and other community outings makes the community appear more appealing and less foreign...(5) A realistic and responsible placement review process is necessary to assure the appropriate match of clients to providers, clients to homes (or sites), and clients to clients...(6) pre-placement visits to proposed home placements and weekend visits can help reduce the stress of transition...(7) involving ward roommates and institutional staff in the actual moving of a client to a new home also aids in reducing trasitional stress...and, (8) [sending] institutional staff who [are] close to clients...into the homes for a week or two to work with the client and with the home's staff to help orient each to the other...

REFERENCES

Bruininks, R. H., Kudla, M. J., Wieck, C. A., and Hauber, F. A. Management problems in community residential facilities. Mental Retardation, June 1980, 18 (3), 125-130.

Chesterfield Mental Health and Mental Retardation Services, The home intervention program: A service delivery program for individuals who are mentally retarded and who have abusive and/or disruptive behavior problems (compiled by D. W. Allin and R. B. Allin Jr.). Chesterfield Mental Health and Mental Retardation Services, 1979.

Eyman, R. K., and Call, T. Maladaptive behavior and community placement of mentally retarded persons. American Journal of Mental Deficiency, September 1977, 82 (2), 137-144.

Keys, V., Boroskin, A., and Ross, R. The revolving door in an MR hospital: A study of returns from leave. Mental Retardation, February 1973, 11 (1), 55-56.

Lakin, K. C., Bruininks, R. H., and Sigford, B. B. Deinstitutionalization and community adjustment: A summary of research and issues. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.), Deinstitutionalization and community adjustment of mentally retarded people. AAMD Monograph No. 4 (E. Edward Meyers, series editor). Washington, D.C.: American Association on Mental Deficiency, 1981, pp. 382-412.

Landesman-Dwyer, S., and Sulzbacher, F. M. Residential placement and adaptation of severely and profoundly retarded individuals. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.), Deinstitutionalization and community adjustment of mentally retarded people. AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington, D.C.: American Association on Mental Deficiency, 1981, pp. 182-194.

Mayeda, T., and Sutter, P. Deinstitutionalization: Phase II. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.), Deinstitutionalization and community adjustment of mentally retarded people. AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington, D. C.: American Association on Mental Deficiency, 1981, pp. 375-381.

MR admissions evaluation (an unpublished report by social work representatives from the state hospitals; compiled by Charley Johnson, M.V.S.A.C.). Meeting held March 4, 1981.

Pagel, S. E., and Whitling, C. A. Readmissions to a state hospital for mentally retarded persons: Reasons for community placement failure. Mental Retardation, April 1978, 16 (2), 164-166.

Scheerenberger, R. C. Deinstitutionalization: Trends and difficulties. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.) Deinstitutionalization and community adjustment of mentally retarded people. AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington, D. C.: American Association on Mental Deficiency, 1981, pp. 3-13.

Seltzer, M. M., Sherwood, C. C., Seltzer, G. B., and Sherwood, S. Community adaptation and the impact of deinstitutionalization. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.) *Deinstitutionalization and community adjustment of mentally retarded people*. *AAMD Monograph No. 4 (C. Edward Meyers, series editor)*. Washington, D. C.: American Association on Mental Deficiency, 1981, pp. 82-88.

Sutter, P., Mayeda, T., Call, T., Yanagi, G., and Yee, S. Comparison of successful and unsuccessful community-placed mentally retarded persons. *American Journal of Mental Deficiency*, November 1980, *85* (3), 262-267.

Welsch-Noot Consent Decree. United States District Court, District of Minnesota, Fourth Division. U. S. District Judge Earl Larson. September 15, 1980.

Wray, L. D., Browne, N. B., and Koster, D. L. *Direct home services program: Service plan for a community-based developmental service* (Working paper #1). Government of Newfoundland and Labrador: Department of Social Services/ Mental Retardation Services, December, 1978.

BIBLIOGRAPHY

Aanes, D., and Moen, M. Adaptive behavior changes of group home residents. *Mental Retardation*, August 1976, *14* (4), 36-40.

Allen, M. K. Persistent factors leading to application for admissions to a residential institution. *Mental Retardation*, August 1972, *10* (4), 25-28.

Azrin, N. H., Kaplan, S. J., and Foxx, R. M. Autism reversal: Eliminating stereotyped self-stimulation of retarded individuals. *American Journal of Mental Deficiency*, November 1973, *78* (3), 241-248.

Berkson, G., and Landesman-Dwyer, S. Behavior research on severe and profound mental retardation (1954-1974). *American Journal of Mental Deficiency*, March 1977, *81* (5), 428-454.

Borthwick, S., Meyers, E. C., and Eyman, R. K. Comparative adaptive and maladaptive behavior of mentally retarded clients of five residential settings in three western states. In R. H. Bruininks, C. E. Meyers, B. B. Sigford, K. C. Lakin (Eds.), *Deinstitutionalization and community adjustment of mentally retarded people*. AAMD Monograph No. 4 (C. Edward Meyers, series editor). Washington, D.C.: American Association on Mental Deficiency, 1981, pp. 351-359.

Bouliew, D. Do institutions maintain retarded behavior? *Mental Retardation*, April 1971, *1* (2), 36-38.

Cohen, H. Behavioral effects of institutional relocation of mentally retarded residents. *American Journal of Mental Deficiency*, July 1977, *82* (1), 12-18.

Conroy, J. W. Trends in deinstitutionalization of the mentally retarded. *Mental Retardation*, August 1977, *15* (4), 44-46.

Crawford, J. L., Aiello, J. R., and Thompson, D. E. Deinstitutionalization and community placement: Clinical and environmental factors. *Mental Retardation*, April 1979, *17* (2), 59-63.

Eyman, R. K., and Borthwick, S. A. Patterns of care for mentally retarded persons. *Mental Retardation*, April 1980, *18* (2), 63-66.

Eyman, R. K., Demaine, G. C., and Lei, T. Relationship between community environments and resident changes in adaptive behavior: A path model. *American Journal of Mental Deficiency*, January 1979, *83* (4), 330-338.

Jaslow, R. I., and Spagna, M. B. Gaps in a comprehensive system of services for the mentally retarded. *Mental Retardation*, April 1977, *15* (2), 6-9.

Kudla, M. J. *National resident movement statistics of public and community residential facilities in 1977*. Unpublished master's thesis, University of Wisconsin, Madison, 1980.

Maisto, C. R., Baumeister, A. A., and Maisto, A. A. An analysis of variables related to self-injurious behavior among institutionalized retarded persons. *Journal of Mental Deficiency Research*, 1978, *22*, 27-36.

Mesibov, G. Alternatives to the principle of normalization. *Mental Retardation*, October 1976, *14* (5), 30-32.

Muma, J. R., and Baumeister, A. A. Programmatic evaluation in mental retardation: Alternatives to taxonomic approaches. *Journal of Special Education*, Winter 1975, *9* (4), 337-344.

Nihira, L. and Nihira, K. Jeopardy in community placement. *American Journal of Mental Deficiency*, March 1975, *79* (5), 538-544.

Nihira, L. and Nihira, K. Normalized behavior in community placement. *Mental Retardation*, April 1975, *13* (2), 9-13.

Nihira, K. Dimensions of adaptive behavior in institutionalized mentally retarded children and adults: Developmental perspective. *American Journal of Mental Deficiency*, November 1976, *81* (3), 215-226.

Repp, A. C., and Deitz, D. E. D. Reinforcement-based reduction procedures: Training and monitoring performance of institutional staff. *Mental Retardation*, October 1979, *17* (5), 221-226.

Rollings, J. P., Baumeister, A. A., and Baumeister, A. A. The use of overcorrection procedures to eliminate the stereotyped behaviors of retarded individuals: An analysis of collateral behaviors and generalization of suppressive effects. *Behavior Modification*, January 1977, *1(1)*, 29-46.

Schalock, R. L. and Harper, R. S. Placement from community-based mental retardation programs: How well do clients do? *American Journal of Mental Deficiency*, November 1978, *83* (3), 240-247.

Scheerenberger, R. C. Public residential services for the mentally retarded: 1979. Madison, WI: Central Wisconsin Center for the Developmentally Disabled, 1979.

Smith, J. B., and Smith, M. A. Antecedents of the institutionalization of the retarded: A review and critique. Presented in the symposium "Institutionalization of the Retarded: A Behavioral Analysis" (Gordon Bourland and Daniel E. Hursh, chairs), meeting of the Association for Behavior Analysis, Milwaukee, 1981.

Zigler, E., and Balla, D. A. Impact of institutional experience on the behavior and development of retarded persons. American Journal of Mental Deficiency, July 1977, 82 (1), 1-11.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Bruce Balow, Ph.D., Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem.

The review and analysis of state hospital admission reports was completed with the kind assistance of the MR Program Division Staff, Department of Public Welfare. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #5: Admissions/Readmissions to State Hospitals September 1, 1980 to May 31, 1981: The Behavior Problem Issues. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, August 31, 1981.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 6

THE FINANCIAL STATUS OF MINNESOTA DEVELOPMENTAL ACHIEVEMENT CENTERS: 1980-1982

Contents

Page
I. Introduction 1
II. Methodology 3
III. Results: 4
  Revenue 4
  Expenditures 6
  Profit/Loss 8
  Program Per Diems 8
  Transportation Per Diems 13
  Capital Assets (Building) 13
  Capital Assets (Vehicles, Furniture, Equipment) 18
  Building Accessibility 18
  Capacity 18
  Average Daily Attendance 22
IV. Implications 22
V. References 25
VI. Appendix 27

I. INTRODUCTION

The issues creating the impetus for this statewide study of developmental achievement centers (DACs) are the same issues that generated similar reports for the past several years. These issues are cost, purpose, and characteristics about the agencies and clients served. Similar to previous studies, there is a pressing need for information since the combined federal, state, and local cutbacks have an effect on community-based programs such as DACs. In addition, the Community Social Services Act (CSSA) went into effect on January 1, 1980, thus terminating the existing Department of Public Welfare data base developed for DACs. The potential use of Title XIX as one funding mechanism for DACs has created an intensified demand for information about clients, personnel, and services. This policy analysis paper is the first of three issues to present the results of a statewide study of all DACs in Minnesota. The second paper (Policy Analysis Series #7) will focus on program and personnel, and the third report (Policy Analysis Series #8) will profile individual client characteristics and movement trends.

DEVELOPMENTAL DISABILITIES PLANNING • DEPARTMENT OF ENERGY, PLANNING AND DEVELOPMENT
201 CAPITOL SQUARE BLDG. • 550 CEDAR STREET • ST. PAUL, MN 55101 • 612/296-4018

A Department of Public Welfare report completed in 1978 provides historical information about DACs. Highlights from that report are presented as follows:

- Prior to 1961, few DACs existed in Minnesota (p. 22).
- In 1961, the Minnesota Legislature acted upon recommendations of the Interim Commission on the Problems of the Mentally Retarded, Handicapped and Gifted Children and funded a pilot project to develop nine DACs [Extra Sessions Law of Minnesota for 1961, Chapter 93.] (p. 22).
- In 1963, the Legislature appropriated funds for 14 additional centers under the Daytime Activity Center Act [Chapter 830 of the Session Law.] (p.23).
- Title IVA and Title XX provided federal support to the state with minimal financial commitment of counties (p. 23).
- The Trainable Mentally Retarded Act of 1971 made the State Department of Education responsible for all school age children, who could reasonably expect to benefit socially, emotionally, or physically from their service. DACs shift focus to serving only preschoolers and adults (p. 23).
- In 1975, the Minnesota Legislature provided a special appropriation to pay for 100 percent of approved costs for transportation of DAC clients to and from DACs (p. 23).
- In 1976, Assistant Commissioner Mike Weber requested a study of DACs including characteristics of the population, movement of clients, administrative standards and practices as well as unmet needs (p. 24).
- In 1976 an internal DPW working paper Policy Alternatives for Daytime Activity Centers highlighted major problems including the "absence of a clear goal for DACS as well as inadequate definitions of services, lack of information on clients being served, impact of services and measures of program effectiveness" (p. 3).
- In 1977, the DAC Evaluation Project was funded to develop an instrument to evaluate DACs (p. 24).
- In 1978, DPW completed a comprehensive study of 104 DACs serving 4,221 participants at a total cost of $15 million (p. 34).

A review of the literature on day program services revealed little information. National surveys of activity programs were undertaken in 1963, 1971, and 1979 (Cortazza, 1972; and Bellamy, Sheehan, Horner, & Boles, 1980). In 1963, there were 94 programs identified nationwide. By 1971, the number increased by 612 programs and tripled by 1979 to an estimated 1,989. The primary purpose of activity centers in 1971 was described by Cortazzo (1972) as:

> The severely mentally retarded have a potential and are entitled as human beings in our society to have their potential developed to capacity. It is the responsibility of society to develop and make maximum use of their potential (p.9).

The rapid deinstitutionalization during the 1970s as well as funding changes cited by Bellamy et al (1980) "drastically altered the scope, economics, and role of ADPs." The 1980 report continued:

> Today these programs represent a significant element of each state's adult service planning and have become critical in efforts to disperse residents of public institutions into community programs. Adaptive day programs frequently are viewed as providing the initial services for newly deinstitutionalized individuals [DHEW Report on Deinstitutionalization, 1978], and placement of individuals out of institutions frequently is contingent on availability of space in adaptive day programs (p. 309).

The summary of the Bellamy et al report was to call for greater coordination of policies and the development of practical service models that include greater opportunities for work and vocational outcomes (p. 321). Other literature on day programs includes technological applications for severely retarded adults (Bellamy, Horner, and Inman, 1979) guidebooks for establishing activity centers (Bergman, 1976), and specific training operations within centers (Salmon, 1975; Wehman, 1976; and DeMars, 1975).

The purpose of the current study of developmental achievement centers is to assess the financial, programmatic, and client status during 1980, 1981, and 1982. A three-year time period was selected because little information existed at a statewide level since January 1, 1980. The study was conducted as a joint effort of the Department of Public Welfare, the Minnesota Developmental Achievement Center Association, and the Minnesota Developmental Disabilities Program.

II. METHODOLOGY

The methodology for this study will be presented in abbreviated fashion. According to DPW, there were 108 DACs listed as licensed facilities. One facility is a satellite of the Glacial Ridge Training Center of Willmar State Hospital, one other facility receives no public money and refused to participate. None of the State Hospital DACs were included in the DPW list nor were they included in this study. Information about satellite DAC programs was collected from the respective central administrative offices. In order to get 100% participation, mail and telephone surveys were discarded in favor of onsite interviews. Interview studies typically yield a higher response rate, greater accuracy, and higher reliability than other methods. All 106 DACS participated in the study.

The general areas of investigation were outlined in a working document prepared by DPW and MNDACA. A joint meeting of representatives from DPW, DD, and MNDACA was held on September 1, 1981 to discuss the purpose, method, timeline, procedures, and questionnaire areas. Suggested questions were generated at that meeting. The Developmental Disabilities Program drafted the questionnaires with assistance from DPW staff. On September 11, 1981 the MNDACA Board of Directors gave its approval to the study. Revisions were made until September 15th, when a briefing was held with three interviewers from DPW and five interviewers from DD. On September 29, 1981, interview materials were distributed to all the surveyors. An interview packet contained:

1. an interviewer manual which outlined the purpose, selection of respondents, data privacy, question-by-question instructions, and sampling instructions;
2. cover sheet with identification information about the DAC;
3. administrator questionnaire;
4. financial questionnaire;
5. individual client forms;
6. eligible client roster form; and
7. respondent determination sheet.

Interviewers were responsible for setting up appointments with the assigned DACs. Interviews began on September 30, 1981, and ended in December 1981.

Editing and coding of the protocols occurred during November and December 1981 by staff of the Developmental Disabilities Program. Key to disc entry of the data was made by the Land Management Information Center of the Department of Energy, Planning and Development under contract with the Developmental Disabilities Program. The codebook (data file layout) and formats for the output were designed by the staff of the Developmental Disabilities Program. Copies of the questionnaires are available from the Developmental Disabilities Program by written request.

III. RESULTS

The results section will be presented in the following order: (a) revenue, (b) expenditures, (c) profit/loss, (d) program per diems, (e) transportation per diems, (f) capital assets (building), (e) capital assets (vehicles, furniture, equipment), (f) building accessibility, (g) capacity, and (h) average daily attendance.

Revenue. The total revenue reported for Minnesota developmental achievement centers (DACs) during 1980, 1981, and 1982 (estimated) was $22,890,077, $25,976,738 and $27,360,853 respectively, and is presented in Table 1. The total revenue during 1978 was approximately $15 million which indicates a steady increase in revenues. The statewide average increase in revenues from 1980 to 1981 was 13.5 percent; the increase from 1981 to 1982 will be

Table 1
Sources of Revenue by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region		Government Support	%	Family Support	%	Other Support	%	Total	N
One	1980	$622,568	94.5	$7,199	1.1	$28,977	4.4	$658,744	6
	1981	641,093	98.0	8,703	1.3	4,771	.7	654,567	6
	1982	655,905	98.2	9,798	1.5	2,000	.3	667,703	6
Two	1980	430,115	99.2	0	.0	3,484	.8	433,599	4
	1981	491,703	99.7	0	.0	1,450	.3	493,153	4
	1982	577,093	98.2	0	.0	10,800	1.8	587,893	4
Three	1980	2,431,842	98.8	1,804	.1	27,273	1.1	2,460,919	10
	1981	2,682,467	98.6	2,000	.1	36,622	1.3	2,721,089	10
	1982	2,748,295	98.6	5,820	.2	32,669	1.1	2,786,784	10
Four	1980	937,842	97.7	5,201	.6	16,661	1.7	959,704	7
	1981	1,044,583	96.2	5,300	.5	36,334	3.3	1,086,217	7
	1982	1,069,112	97.9	4,000	.4	19,000	1.7	1,092,112	7
Five	1980	664,756	89.3	0	.0	79,309	10.7	744,065	6
	1981	787,823	97.9	0	.0	16,579	2.1	804,402	6
	1982	677,126	97.0	0	.0	20,964	3.0	698,090	5
Six	1980	921,473	95.8	3,001	.3	37,245	3.9	961,719	9
	1981	1,135,113	96.8	2,971	.3	34,530	2.9	1,172,614	9
	1982	1,257,981	97.8	3,000	.2	25,407	2.0	1,286,388	9
Seven	1980	1,619,620	97.0	580	.1	48,809	2.9	1,669,009	8
	1981	1,879,565	97.9	0	.0	41,024	2.1	1,920,589	8
	1982	1,983,347	97.0	0	.0	60,400	3.0	2,043,747	8
Eight	1980	949,352	95.2	15,995	1.6	31,855	3.2	997,202	8
	1981	1,060,981	96.7	14,200	1.3	21,838	2.0	1,097,019	8
	1982	1,120,688	96.9	8,500	.7	27,278	2.4	1,156,466	8
Nine	1980	1,147,421	95.9	4,348	.4	43,978	3.7	1,195,747	8
	1981	1,215,581	95.9	3,600	.3	47,773	3.8	1,266,954	8
	1982	1,236,177	97.3	5,200	.4	28,670	2.3	1,270,047	8
Ten	1980	2,054,997	94.7	43,665	2.0	72,174	3.3	2,170,836	13
	1981	2,293,948	97.5	14,915	.6	45,488	1.9	2,354,351	13
	1982	2,506,452	97.3	21,534	.8	48,700	1.9	2,576,686	13
Eleven	1980	9,839,320	92.5	319,279	3.0	479,934	4.5	10,638,533	27
	1981	11,455,860	92.3	402,820	3.3	547,153	4.4	12,405,833	27
	1982	12,174,504	92.3	456,021	3.4	564,412	4.3	13,194,937	27
State Total	1980	21,566,315	94.2	401,072	1.8	922,690	4.0	22,890,077	106
	1981	24,650,217	94.9	454,509	1.7	872,062	3.4	25,976,788	106
	1982	25,960,897	94.9	513,873	1.9	886,083	3.2	27,360,853	105

Revenue (continued)

approximately 5.3 percent. The reader is advised that the 1982 figures are projections only since counties continue to revise budgets. The full extent of the 1982 budget changes cannot be assessed until the the end of the fiscal year. The reader is also advised that the number of new clients and severity of handicaps has also increased during the three year time period and will be described in the forthcoming Policy Analysis Paper #8. In addition a "maintenance of effort" clause in the Community Social Services Act affected the level of county support in 1980 and 1981.

In 1980, government sources accounted for $21,566,315 or 94.2 percent of all DAC revenue while family support totaled $401,072 (1.8%) and donations or other sources of support were reported at $922,690 (4.0%). Revenue derived from family support/fee payments is understated since in some localities family fees are paid directly to the counties. Resources generated through "other sources" and held in restricted accounts may also have been underreported.

DAC revenue for 1981 was derived from similar sources in similar proportions: government sources accounted for $24,650,217 (94.9%); family support generated $454,509 (1.7%); and donations or other support provided $872,062 (3.4%).

DACs project that during 1982 government sources will provide approximately $25,961,000 or 94.9 percent of all DAC revenue; family support will equal about $514,000 (1.9%); and other sources will total about $886,000 (3.2%).

Table 1 also presents revenue totals by region.[1] Region Two reported the lowest total revenue ($493,153 in 1981) while Region Eleven reported the highest total revenue ($12,405,833 during 1981). This pattern corresponds with the State's population distribution patterns as well as other human service indicators. Although a few regions show substantial changes in DAC budgets from 1980 to 1982, most regions show only moderate increases; some figures indicate only marginal changes.

Expenditures. The financial questionnaire separated expenditures into four categories: personnel, transportation, occupancy, and other program.

Like most human services, day programming for persons with developmental disabilities is a labor intensive "industry." Staff-client ratios are highly correlated with the dependency level of clients (see also Policy Analysis Paper #4, 1981, page 10). Consequently, personnel costs are the leading expense items reported by DACs. Personnel costs included salaries, employers' payroll taxes, and any fringe benefits paid by the DAC for their employees. As Table 2 indicates, the statewide total for personnel costs was $14.2 million in calendar year 1980 or 62.4 percent of total expenditures. The personnel figure increased to $16.5 million in calendar year 1981 (63.3% of total expenditures) and is expected to increase to $17.7 million in 1982 which will represent 63.6 percent of all expenditures. Table 2 summarizes the other expenses reported by DACs.

---

[1] See the appendix for a map of Minnesota's economic development regions. For this study, regions 6E and 6W were combined and treated as one region (Region 6); likewise for regions 7W and 7E (Region 7).

Table 2
Expenditures by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region		Personnel	%	Trans-portation	%	Occupancy	%	Program/ Other	%	Total
One	1980	$355,191	55.0	$116,695	18.1	$55,250	8.6	$117,999	18.3	$645,135
	1981	394,782	60.8	108,770	16.8	49,064	7.6	96,315	14.8	648,931
	1982	382,104	57.6	97,779	14.7	73,557	11.1	109,879	16.6	663,319
Two	1980	287,626	69.6	45,009	10.9	32,852	7.9	47,908	11.6	413,395
	1981	340,700	70.4	54,260	11.2	31,731	6.6	57,043	11.8	483,734
	1982	406,114	69.3	64,521	11.0	32,575	5.6	82,332	14.1	585,542
Three	1980	1,565,300	64.0	345,070	14.1	264,123	10.8	271,179	11.1	2,445,672
	1981	1,731,882	64.4	423,543	15.8	290,654	10.8	243,050	9.0	2,689,129
	1982	1,829,610	64.1	459,912	16.1	311,257	10.9	253,503	8.9	2,854,282
Four	1980	644,079	68.3	130,901	13.9	63,875	6.8	103,337	11.0	942,192
	1981	736,681	69.6	138,141	13.1	75,307	7.1	107,904	10.2	1,058,033
	1982	780,579	70.8	128,434	11.6	82,939	7.5	110,991	10.1	1,102,943
Five	1980	413,235	59.4	126,729	18.2	52,431	7.6	103,205	14.8	695,600
	1981	484,732	62.1	136,904	17.5	52,971	6.8	106,618	13.6	781,225
	1982	435,454	62.5	109,006	15.6	45,979	6.6	106,856	15.3	697,295
Six	1980	559,235	59.3	119,833	12.7	85,059	9.0	179,216	19.0	943,343
	1981	736,379	63.1	156,162	13.4	124,677	10.7	150,221	12.8	1,167,439
	1982	809,550	63.1	152,561	11.9	136,859	10.7	183,310	14.3	1,282,280
Seven	1980	1,052,744	65.9	221,190	13.9	89,597	5.6	233,407	14.6	1,596,938
	1981	1,259,988	66.9	256,904	13.7	142,429	7.6	222,283	11.8	1,881,604
	1982	1,350,178	67.0	267,432	13.3	181,414	9.0	215,286	10.7	2,014,310
Eight	1980	624,954	64.8	126,563	13.1	82,351	8.6	130,571	13.5	964,439
	1981	702,859	64.3	151,804	13.9	90,518	8.3	147,815	13.5	1,092,996
	1982	781,926	67.1	137,635	11.8	93,788	8.0	152,919	13.1	1,166,268
Nine	1980	610,096	52.7	202,739	17.5	117,788	10.2	227,706	19.6	1,158,329
	1981	677,982	53.4	228,640	18.0	155,474	12.2	208,573	16.4	1,270,669
	1982	681,375	55.1	205,503	16.6	157,630	12.8	191,857	15.5	1,236,365
Ten	1980	1,344,613	63.5	352,139	16.6	116,756	5.5	304,444	14.4	2,117,952
	1981	1,563,133	66.5	385,724	16.4	128,313	5.5	272,840	11.6	2,350,010
	1982	1,800,590	68.7	377,165	14.4	165,105	6.3	277,266	10.6	2,620,126
Eleven	1980	6,716,589	62.3	1,617,579	15.0	868,775	8.1	1,576,560	14.6	10,779,503
	1981	7,835,692	62.3	1,897,851	15.1	1,036,843	8.3	1,801,845	14.3	12,572,231
	1982	8,410,041	62.0	1,963,500	14.5	1,278,620	9.4	1,917,195	14.1	13,569,356
State Total	1980	14,173,662	62.4	3,404,447	15.0	1,828,857	8.1	3,295,532	14.5	22,702,498
	1981	16,464,810	63.3	3,938,703	15.2	2,177,981	8.4	3,414,507	13.1	25,996,001
	1982	17,667,521	63.6	3,963,448	14.3	2,559,723	9.2	3,601,394	12.9	27,792,086

Expenditures (continued)

Transportation was the second highest expense in all three years. Transportation expenditures were defined as the cost to the DAC for transporting clients to and from the DAC center. Included in these figures are the bus drivers' wages and payroll taxes, operating costs, maintenance costs, and contract services. The expenditures listed in Table 2 show that transportation costs in calendar year 1980 were $3.4 million (15.0% of all expenditures), $3.94 million (15.2%) in 1981 and are expected to increase only slightly in calendar year 1982 to $3.96 million (14.3% of total expenditures).

The third expenditure category was occupancy. Occupancy costs can be distinguished as costs incurred by owners and costs incurred by renters. Occupancy costs for owners included interest on building loans, property taxes, depreciation, upkeep of grounds and utilities. For renters of buildings, occupancy costs included rent, miscellaneous upkeep and utilities. Table 2 indicates that occupancy costs totaled $1.8 million (representing 8.1% of total expenditures) during 1980. In calendar year 1981 that figure increased to $2.2 million (8.4%) and is projected to increase to $2.6 million (9.2%) in 1982.

The fourth category of expenditures was program or other. This category included all operating expenses not accounted for in the three other areas. Costs included were program supplies, postage, subscriptions, travel and meetings for staff and other depreciation. Program or other costs for 1980 were $3.3 million (14.5%), $3.4 million (13.1%) in 1981, and are projected to increase to $3.6 million (12.9%) in 1982.

Regional expenditure totals and percentage figures are also presented in Table 2.

Profit/Loss. Table 3 presents the "profit/loss" statement for DACs in Minnesota for 1980, 1981, and 1982 (projected). Profit/loss was defined as operating revenues minus program, personnel, and transportation expenditures. These figures do not include other non-service expenditures such as loan payments for buildings or vehicles. Profit/loss represents surplus or deficit after provision of services; it is not a cash flow statement. Thirty-four (34 or 32%) of the 106 DACs reported losses in 1980; 32 (30%) reported that expenditures exceeded revenue in 1981; and in 1982 40 (38%, N=105) DACs anticipate losses. This trend data should be watched in the future given the informal reports from DACs since the survey interviews were completed.

These findings are only as reliable as the information reported to the interviewers at the time of the survey. These figures do not represent in any fashion an audited record in accounting terms, of any DAC finances. In most cases the profit/loss for 1982 considered projected revenue reductions, but did not always include expenditure reductions because, at the time of the interview, directors did not know where cuts might have to be made--if their budgets were to be reduced.

Program Per Diems. Respondents were asked to give both the per day per person program reimbursement rate and the per day per person transportation rate. Table 4 lists the average program per diems (as well as the high and low rates, i.e., the range) for each type of combination of program (adult, school age, preschool, and infant), year (1980, 1981, and 1982), and location (in-center and homebound). Table 5 shows the corresponding transportation per diems.

Table 3
Profit/Loss by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region		Total Revenue	Total Expenditures	Profit/ (Loss)	N DACs Reporting Loss
One	1980	$658,744	$645,135	$13,609	3
	1981	654,567	648,931	5,636	1
	1982	667,703	663,319	4,384	1
Two	1980	433,599	413,395	20,204	0
	1981	493,153	483,734	9,419	1
	1982	587,893	585,542	2,351	0
Three	1980	2,460,919	2,445,672	15,247	4
	1981	2,721,089	2,689,129	31,960	1
	1982	2,786,784	2,854,282	(67,498)	3
Four	1980	959,704	942,192	17,512	1
	1981	1,086,217	1,058,033	28,184	2
	1982	1,092,112	1,102,943	(10,831)	2
Five	1980	744,065	695,600	48,465	1
	1981	804,402	781,225	23,177	1
	1982	698,090	697,295	795	3
Six	1980	961,719	943,343	18,376	1
	1981	1,172,614	1,167,439	5,175	3
	1982	1,286,388	1,282,280	4,108	2
Seven	1980	1,669,009	1,596,938	72,071	3
	1981	1,920,589	1,881,604	38,985	3
	1982	2,043,747	2,014,310	29,437	4
Eight	1980	997,202	964,439	32,763	2
	1981	1,097,019	1,092,996	4,023	3
	1982	1,156,466	1,166,268	(9,802)	2
Nine	1980	1,195,747	1,158,329	37,418	3
	1981	1,266,954	1,270,669	(3,715)	3
	1982	1,270,047	1,236,365	33,682	1
Ten	1980	2,170,836	2,117,952	52,884	5
	1981	2,354,351	2,350,010	4,341	4
	1982	2,576,686	2,620,126	(43,440)	6
Eleven	1980	10,638,533	10,779,503	(140,970)	11
	1981	12,405,833	12,572,231	(166,398)	10
	1982	13,194,937	13,569,356	(374,419)	16
State Total	1980	22,890,077	22,702,498	187,579	34
	1981	25,976,788	25,996,001	(19,213)	32
	1982	27,360,853	27,792,086	(431,233)	40

Table 4
Program Per Diems by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)
(In-Center)

Region		$\overline{X}$	Adult Range	N	$\overline{X}$	School Age Range	N	$\overline{X}$	Pre-School Range	N	$\overline{X}$	Infant Range	N
One	1980	$22.62	$17.19-29.81	6	$26.38	$21.00-29.85	3	$32.69	$21.00-41.94	4			0
	1981	23.44	19.10-28.61	6	28.67	22.00-35.39	3	37.02	35.56-37.80	3			0
	1982	24.96	20.82-27.52	6	26.52	22.00-30.98	3	30.56	10.29-42.90	3			0
Two	1980	19.91	11.62-29.47	4	24.60		1	19.64	14.68-24.60	2			0
	1981	21.28	14.46-30.32	4	24.32		1	19.25	14.18-24.32	2			0
	1982	23.72	17.94-31.08	4	26.40		1	20.54	14.68-26.40	2			0
Three	1980	21.08	16.35-27.32	10	28.05	22.73-33.37	2	23.50	15.84-36.87	6	19.20		1
	1981	22.94	16.15-32.15	10	31.10	30.10-32.09	2	29.80	14.79-44.84	6	23.00		1
	1982	22.88	16.00-32.15	10	33.98	30.10-37.85	2	31.33	10.83-54.69	6	20.51		1
Four	1980	17.85	14.84-22.52	7	8.70		1			0			0
	1981	19.81	16.67-27.22	7	9.50		1			0			0
	1982	20.11	17.00-26.81	7	10.29		1			0			0
Five	1980	21.66	15.85-26.76	6	17.47		1			0			0
	1981	21.33	18.06-24.72	6	22.25		1			0			0
	1982	23.27	19.48-25.43	5			0			0			0
Six	1980	18.13	13.12-23.01	9	13.02		1	27.49	23.01-32.66	4	24.44		1
	1981	18.41	13.43-25.41	9	17.64		1	26.77	22.19-31.52	4	26.00		1
	1982	20.18	14.36-28.45	9	21.57		1	30.79	24.41-36.03	4	36.03		1
Seven	1980	19.81	11.39-35.93	8	29.81	23.69-35.93	2	28.44	20.24-34.66	4	34.66		1
	1981	20.48	12.50-31.97	8	25.66	19.35-31.97	2	26.88	19.94-32.26	4	24.75		1
	1982	20.36	13.26-30.88	8	23.59	16.29-30.88	2	28.08	21.78-33.55	4	26.00		1
Eight	1980	16.49	12.39-19.61	8			0	43.22	29.04-57.39	2			0
	1981	17.94	13.95-20.21	8			0	49.66	32.21-67.10	2			0
	1982	18.32	13.92-21.93	8			0	49.70	35.07-64.32	2			0

Table 4 (Continued)
(In-Center)

Region		X̄	Adult Range	N	X̄	School Age Range	N	X̄	Pre-School Range	N	X̄	Infant Range	N
Nine	1980	$18.37	$10.47-24.06	8	$26.55	$21.70-31.39	2	$24.14	$15.78-32.29	7			0
	1981	20.62	11.73-26.06	8	26.32	20.82-31.81	2	26.78	18.93-36.99	6			0
	1982	24.00	15.99-37.34	8	27.14	22.47-31.81	2	25.28	21.15-29.96	3			0
Ten	1980	17.28	12.00-21.63	13	19.63	17.62-21.63	2	22.81	16.59-27.54	9			0
	1981	20.29	15.61-27.82	13	22.27	20.89-23.64	2	23.93	17.12-27.47	9			0
	1982	21.49	15.85-27.82	13	23.49	23.00-23.97	2	24.94	18.84-31.47	9			0
Eleven	1980	20.35	9.51-43.76	20	34.63	28.55-40.71	2	35.14	22.05-71.04	18	$44.13	$22.28-69.24	5
	1981	22.78	11.53- 7.51	20	39.67	33.93-45.41	2	38.61	24.22-76.52	18	45.71	24.22-65.19	5
	1982	23.39	12.66-43.00	20	42.46	39.51-45.41	2	39.79	25.81-66.87	17	43.27	25.81-62.60	6
State Total	1980	19.32	9.51-43.76	99	24.72	8.70-40.71	17	29.07	14.68-57.39	56	37.37	19.20-69.24	8
	1981	21.00	11.53-47.51	99	26.45	9.50-45.41	17	31.73	14.18-76.52	54	37.79	23.00-65.19	8
	1982	22.05	12.66-43.00	98	27.44	10.29-45.41	16	32.65	10.29-66.87	50	38.02	20.51-62.50	9

(Homebound)

Region		X̄	Adult Range	N	X̄	School Age Range	N	X̄	Pre-School Range	N	X̄	Infant Range	N
One	1980			0			0			0			0
	1981			0			0	27.95		1	15.00		1
	1982			0			0			0	15.00		1
Two	1980			0			0			0	26.00		1
	1981			0			0			0	26.00		1
	1982			0			0			0	26.00		1
Three	1980			0			0	25.60		1	74.64	64.73-84.54	2
	1981			0			0	20.82		1	59.27		1
	1982			0			0			0	59.27		1
Four	1980			0			0			0	27.47	18.81-36.13	2
	1981			0			0			0	35.46	20.40-50.52	2
	1982			0			0			0	40.46	29.80-51.11	2

Table 4 (Continued)
(Homebound)

Region		$\overline{X}$	Adult Range	N	$\overline{X}$	School Age Range	N	$\overline{X}$	Pre-School Range	N	$\overline{X}$	Infant Range	N
Five	1980	$16.49		1			0			0			0
	1981	16.80		1			0			0			0
	1982			0			0			0			0
Six	1980			0	$23.01		1	$26.84	$16.40-32.66	3	$22.26		1
	1981			0			0	23.88	14.00-35.45	3	11.70		1
	1982			0			0	30.55	24.41-36.68	2	25.00		1
Seven	1980			0			0	38.08	36.55-39.60	2	34.81	$19.00-51.63	4
	1981			0			0	41.42	32.15-50.69	2	36.58	16.50-52.79	4
	1982			0			0	37.61	26.00-49.21	2	30.53	18.15-48.41	4
Eight	1980	33.19		1	31.75		1	33.19		1	22.66	16.63-31.75	3
	1981	46.60		1	34.10		1	46.60		1	28.31	20.01-34.10	3
	1982	45.63		1	40.29		1	45.63		1	28.27	13.92-40.29	3
Nine	1980	31.66	19.31-44.00	2			0	29.81	17.74-44.00	3	33.02	19.31-52.28	3
	1981	23.86	21.66-26.06	2			0	24.82	23.57-26.06	2	36.68	21.66-58.80	3
	1982	26.87		1			0			0	33.68	24.72-49.46	3
Ten	1980	31.85	27.79-35.91	2			0	24.34		1	30.21	26.62-35.53	5
	1981	34.66	32.10-37.22	2			0	27.43		1	33.69	30.62-37.00	5
	1982	34.52	30.54-38.49	2			0	20.27		1	35.10	28.49-44.10	5
Eleven	1980			0	43.57		1			0	52.90	33.27-109.07	8
	1981			0	43.13		1			0	56.18	37.67-102.80	8
	1982			0	46.75		1			0	54.61	37.97-92.68	9
State Total	1980	29.45	16.49-44.00	6	32.78	$23.01-43.57	3	29.93	16.40-44.00	11	39.07	16.63-109.07	29
	1981	30.07	16.80-46.60	6	38.62	34.10-43.13	2	29.72	14.00-50.69	11	39.38	11.70-102.80	29
	1982	35.38	26.87-45.63	4	43.52	40.29-46.75	2	33.70	20.27-49.21	6	39.37	13.92-92.68	30

Program Per Diems (continued)

The average statewide program per diem for adults was $21.00 (in-center) and $30.07 (homebound) during 1981. Also during 1981, the average statewide preschool per diem was $31.73 (in-center) and $29.72 (homebound). Adult per diems increased an average of 8.7 percent from 1980 to 1981 and will increase an estimated 5.0 percent from 1981 to 1982. Preschool per diems on the other hand, showed a more dramatic percentage increase from 1980 to 1981 (9.2%) but only a 2.9 percent increase for 1982.

Adult In-Center		Pre-School In-Center	
1980	$19.32	1980	$29.07
1981	$21.00	1981	$31.73
1982	$22.05	1982	$32.65

Transportation Per Diems. Transportation per diem figures in Table 5 show that the statewide average adult (in-center) rate for 1981 was $4.33, while the statewide average pre-school (incenter) rate for 1981 was $6.19. The statewide average increase in adult transportation per diems was 5.6% from 1980 to 1981 and a projected -4.9% from 1981 to 1982.

Adult Transportation		Preschool Transportation	
1980	$4.10	1980	$5.56
1981	$4.33	1981	$6.19
1982	$4.12	1982	$5.95

The reader is referred to Table 5 for the remainder of the rates.

Capital Assets (Building). Table 6 presents capital asset expenditures by DACs. Included in Table 6 are expenditures for building rent, purchases of existing buildings, and new facility construction. These figures are difficult to derive because of donations and contributions of capital assets. The figures show actual cash outlays for capital assets at the time of purchase; they do not indicate present salable value.

Building rent (Table 6A) totaled $1.2 million statewide in calendar year 1981 for 66 facilities. The average rent was $17,500. Table 6B indicates total cost, loan payments and 1981 depreciation for those buildings which were purchased. Thirty-five (35) DACs reported that they had purchased buildings. The total statewide cost was $5.6 million; the average was $160,000 per facility. Of those 35 DACs, 22 reported making loan payments which totaled $267,000 in calendar year 1981; the average loan payment was $12,000. Twenty-nine (29) of the 35 DACs took depreciation on those buildings ($176,163 in calendar year 1981) averaging $6,000 per agency.

Thirty-four (34) DACs reported new construction of a facility (Table 6C). The total was $4.2 million; the average was $124,000. Ten (10) DACs reported making loan payments ($149,000 total in CY 1981); the average loan payment was $14,900. Twenty-three (23) of the 34 DACs were taking depreciation on those buildings. The total depreciation was $112,000 in 1981; the average was $4,900.

Table 5
Transportation Per Diems by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)
(In-Center)

Region		X̄	Adult Range	N	X̄	School Age Range	N	X̄	Pre-School Range	N	X̄	Infant Range	N
One	1980	$6.19	$2.87-13.32	6	$5.22	$3.00- 6.55	3	$7.29	$3.00-14.34	4			0
	1981	5.93	3.00-12.92	6	4.44	3.00- 6.23	3	8.36	5.93-12.92	3			0
	1982	4.88	3.00- 8.39	6	3.78	3.00- 5.21	3	6.44	5.21- 8.39	3			0
Two	1980	3.29	1.72- 6.89	4	2.26		1	2.28	2.26- 2.30	2			0
	1981	3.29	2.12- 4.66	4	3.57		1	3.19	2.80- 3.57	2			0
	1982	3.29	2.60- 3.95	4	3.95		1	3.63	3.30- 3.95	2			0
Three	1980	3.70	1.03- 5.87	10	4.59		1	3.88	1.03- 5.87	6	$5.87		1
	1981	3.98	1.50- 7.90	10	3.90		1	4.27	1.50- 7.90	5	7.90		1
	1982	3.78	.30- 6.32	10	4.05		1	3.86	.30- 6.32	5	6.32		1
Four	1980	2.38	.60- 3.64	7	.60		1			0			0
	1981	2.45	.60- 3.74	6	.60		1			0			0
	1982	2.74	.60- 4.65	6	.60		1			0			0
Five	1980	4.73	2.53- 6.68	6	25.00		1			0			0
	1981	5.14	2.93- 8.92	6	25.00		1			0			0
	1982	4.05	2.72- 5.54	5			0			0			0
Six	1980	3.90	.50- 8.99	9	4.88		1	4.29	2.01- 6.37	4	2.01		1
	1981	4.22	.42- 7.41	9	6.73		1	5.42	3.40- 7.41	4	3.68		1
	1982	4.29	.69- 8.25	9	8.25		1	5.41	3.20- 7.19	4	4.68		1
Seven	1980	4.83	.75- 8.24	7	6.35	4.45- 8.24	2	4.95	2.15- 8.24	3	4.45		1
	1981	4.39	.75- 8.33	7	4.77	4.15- 5.39	2	3.93	2.24- 5.39	3	4.15		1
	1982	4.50	1.00- 8.70	7	4.14	3.32- 4.95	2	3.53	2.33- 4.95	3	3.32		1
Eight	1980	3.61	.88- 7.01	8			0	4.55		1			0
	1981	3.96	1.06- 7.86	8			0	3.94		1			0
	1982	3.21	.90- 7.31	8			0	3.38		1			0

Table 5 (Continued)
(In-Center)

Region		$\overline{X}$	Adult Range	N	$\overline{X}$	School Age Range	N	$\overline{X}$	Pre-School Range	N	$\overline{X}$	Infant Range	N
Nine	1980	$4.54	$2.06- 7.70	8	$3.23	$2.86- 3.60	2	$4.89	$3.60- 7.70	7	$4.04		1
	1981	5.06	1.78- 8.81	8	3.09	2.79- 3.39	2	6.26	2.79- 8.81	6	4.61		1
	1982	4.81	.96- 8.82	8	2.98		2	4.87	2.98- 5.91	3	5.72		1
Ten	1980	4.13	1.30- 8.18	12	4.11	3.86- 4.35	2	5.08	3.39- 8.18	8			0
	1981	4.32	1.44- 7.97	12	4.48	4.33- 4.62	2	5.55	3.34- 9.79	8			0
	1982	4.46	1.44- 7.32	11	4.78	4.75- 4.80	2	5.02	3.11- 7.32	7			0
Eleven	1980	4.12	.87- 7.90	20	5.66	5.57- 5.74	2	7.02	3.10-17.06	18	5.78		1
	1981	4.50	1.03- 8.04	20	6.89	6.30- 7.48	2	7.64	3.72-15.39	18	6.05		1
	1982	4.36	1.18- 7.72	20	7.75	7.06- 8.43	2	8.02	2.46-17.30	17	5.05		1
State Total	1980	4.10	.50-13.32	97	5.73	.60-25.00	16	5.56	1.03-17.06	53	4.43	2.01- 5.87	5
	1981	4.33	.42-12.92	96	5.72	.60-25.00	16	6.19	1.50-15.39	50	5.28	3.68- 7.90	5
	1982	4.12	.30- 8.82	94	4.50	.60- 8.43	15	5.95	.30-17.30	45	5.02	3.32- 6.32	5
						(Homebound)							
One	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Two	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Three	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Four	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0

Table 5 (Continued)
(Homebound)

Region		$\bar{X}$	Adult Range	N	$\bar{X}$	School Age Range	N	$\bar{X}$	Pre-School Range	N	$\bar{X}$	Infant Range	N
Five	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Six	1980			0			0	$5.50		1			0
	1981			0			0	5.50		1			0
	1982			0			0			0			0
Seven	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Eight	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
Nine	1980	$4.04		1			0			0	$5.67		1
	1981	4.61		1			0			0	6.16		1
	1982	5.72		1			0			0	5.91		1
Ten	1980	4.06		1			0			0	4.06		1
	1981	4.90		1			0			0	4.90		1
	1982	5.40		1			0			0	5.40		1
Eleven	1980			0			0			0			0
	1981			0			0			0			0
	1982			0			0			0			0
State Total	1980	4.05	$4.04- 4.06	2			0	5.50		1	4.87	$4.06- 5.67	2
	1981	4.76	4.61- 4.90	2			0	5.50		1	5.53	4.90- 6.16	2
	1982	5.56	5.40- 5.72	2			0			0	5.66	5.40- 5.91	2

Table 6

Capital Assets (Buildings) by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

A. Rent

Region	Total	Average	N
One	$27,900	$5,580	5
Two	5,250		1
Three	24,000		1
Four	28,443	7,111	4
Five	26,430	6,608	4
Six	27,294	5,459	5
Seven	67,776	16,944	4
Eight	28,940	4,823	6
Nine	42,350	14,117	3
Ten	76,748	8,528	9
Eleven	796,505	33,188	24
State Total	1,151,636	17,449	66

B. Purchase of Building

Region	Cost			Annual Loan Payments			Annual Depreciation		
	Total	Average	N	Total	Average	N	Total	Average	N
One	$95,000		1	$5,000		1			0
Two	350,000		1	2,509		1	$3,243		1
Three	1,130,319	$161,474	7	114,412	$57,206	2	59,346	$9,891	6
Four	205,350	51,338	4	4,687	2,344	2	4,437	2,219	2
Five	94,150		1	7,317		1	2,690		1
Six	906,812	226,703	4	44,700	22,350	2	22,078	7,359	3
Seven	157,989	52,663	3	6,090	3,045	2	8,764	2,921	3
Eight	239,973		1	17,131		1	9,200		1
Nine	647,658	129,532	5	21,355	5,339	4	23,104	5,776	4
Ten	446,714	111,679	4	24,820	6,205	4	17,530	4,383	4
Eleven	1,337,427	334,357	4	19,613	9,807	2	25,771	6,443	4
State Total	5,611,392	160,325	35	267,634	12,165	22	176,163	6,075	29

C. New Construction/Remodeling

Region	Cost			Annual Loan Payments			Annual Depreciation		
	Total	Average	N	Total	Average	N	Total	Average	N
One	$202,300	$101,150	2	$8,000		1	$2,000		1
Two	149,338	74,669	2			0	1,976		1
Three	1,035,259	147,894	7	12,000		1	25,350	$6,338	4
Four	4,000		1			0	114		1
Five	188,359	62,786	3	12,051		1	5,912	1,971	3
Six	4,000		1			0			0
Seven	388,608	129,536	3	32,058	$10,686	3	12,363	4,121	3
Eight	4,000		1			0			0
Nine	8,853	4,427	2			0	64		1
Ten	95,240	31,747	3	1,500		1	5,266	2,633	2
Eleven	2,120,471	235,608	9	83,180	27,727	3	59,377	8,482	7
State Total	4,200,428	123,542	34	148,789	14,879	10	112,422	4,888	23

Capital Assets (Vehicles, Furniture, Equipment). Interviewers also asked the DACs to report capital assets such as motor vehicles or furniture and equipment. Table 7A shows that 65 DACs (61%) indicated that they had purchased one or more motor vehicles. Total cost statewide was $1.3 million or $20,000 per DAC. Of those 65 agencies, 14 DACs made loan payments totaling $82,000 in calendar year 1981. The average loan payment was $5,900. Sixty (60) DACs reported taking depreciation on vehicle purchases. The statewide total was $250,000 or $4,200 per DAC.

The cost of capital assets such as furniture and equipment (Table 7B) was known by 86 DACs. The remaining 20 DACs indicated unknown cost or contributed furniture and equipment. The 86 DACs' total cost for furniture and equipment was $1.7 million at the time of purchase. The average was $20,000 per DAC. Only one DAC indicated a loan payment in calendar year 1981 ($1,500). Depreciation was taken by 77 of the 86 DACs. The total amount was $145,000; the average was $1,886.

Building Accessibility. In the next several years, DACs are expected to serve more people with physical or multiple handicapping conditions. As a result of this expected trend, buildings will have to be accessible (both exterior and interior). Two questions were posed to DAC directors about accessibility. The first question assessed exterior accessibility with 72% of the 146 buildings reported to be accessible. The second question assessed interior accessibility: 58% of the buildings are totally accessible; 21% are partially accessible; and 21% are not accessible. Although the number of barrier free buildings is up from 46 reported in 1978, there are programmatic and fiscal ramifications of this finding. Admissions of individuals with mobility impairments will be delayed until modifications are made in the DAC buildings. (See Table 8)

Capacity. Table 9 shows the licensed capacity of the State's DAC programs by region and statewide total. DACs are licensed by the Department of Public Welfare to provide adult programs or preschool programs or both. Homebound and infant programs are not licensed separately. DAC licenses indicate a facility's client capacity, which is determined to a great extent by building specifications and staffing capabilities.

Six years ago there were 101 DACs in the State with a total licensed capacity of 3,867 (Research and Statistics Division, Minnesota Department of Public Welfare, 1976). The 106 DACs currently in operation reported a total licensed capacity of 5,584 for 1981.

In 1980 the statewide licensed capacity of adult programs was 4,243; the statewide average was 42.4. The licensed capacity during 1981 was 4,436 (44.3 per DAC). DACs reported that they anticipate the licensed capacity of their adult programs to increase to 4,635 during 1982 (a 4.4% increase over 1981).

The licensed capacity of the State's preschool DAC programs was 1,092 in 1980. The licensed capacity was 1,148 during 1981 (a 5.1% increase over 1980) but is projected to decrease by about 2 percent in 1982, to a statewide licensed capacity of 1,123.

Table 7
Capital Assets (Vehicles, Furniture & Equipment) by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

A. Motor Vehicle

	Cost			Annual Loan Payments			Annual Depreciation		
Region	Total	Average	N	Total	Average	N	Total	Average	N
One	$59,418	$11,884	5			0	$16,571	$3,314	5
Two	25,100	8,367	3			0	8,013	2,671	3
Three	248,137	31,017	8	$26,060	$8,687	3	47,264	7,877	6
Four	43,500	21,750	2			0	2,125		1
Five	102,045	17,008	6	13,527	4,509	3	23,529	3,922	6
Six	98,543	16,424	6	6,000		1	26,312	5,262	5
Seven	136,824	22,804	6	23,583	5,896	4	27,502	4,584	6
Eight	16,520	8,260	2			0	2,615	1,308	2
Nine	174,087	29,015	6			0	32,125	5,354	6
Ten	135,483	13,548	10	5,568	2,784	2	26,856	2,686	10
Eleven	255,403	23,218	11	7,452		1	37,088	3,709	10
State Total	1,295,060	19,924	65	82,190	5,871	14	250,000	4,167	60

B. Furniture and Fixtures/Equipment

	Cost			Annual Loan Payments			Annual Depreciation		
Region	Total	Average	N	Total	Average	N	Total	Average	N
One	$15,798	$5,266	3			0	$2,918	$730	4
Two	1,660		1			0	649		1
Three	280,254	28,025	10			0	26,015	2,891	9
Four	26,801	13,401	2			0	2,126	1,063	2
Five	23,688	4,738	5			0	3,134	627	5
Six	49,626	6,203	8			0	4,705	672	7
Seven	67,835	11,306	6	$1,509		1	10,747	1,791	6
Eight	42,029	7,005	6			0	4,408	882	5
Nine	145,843	20,835	7			0	12,210	2,442	5
Ten	259,395	21,616	12			0	15,645	1,565	10
Eleven	771,139	29,659	26			0	62,699	2,726	23
State Total	1,684,068	19,582	86	1,509		1	145,256	1,886	77

Table 8
Type of Building Accessibility by Region and Statewide Total
(Minnesota DACs: 1981, 100% reporting)

(Interior)

Region	Totally Accessible[1] N	Partially Accessible N	Not Accessible N	Total Buildings N
One	3	1	2	6
Two	3	1		4
Three	8	2		10
Four	3	3	3	9
Five	7	2		9
Six	7	1	1	9
Seven	9		4	13
Eight	3	4	2	9
Nine	5		3	8
Ten	8	4	4	16
Eleven	29	12	12	53
State Total	85	30	31	146

(Exterior)

Region	Wheelchair Accessible N	Not Accessible N	Total Buildings N
One	3	3	6
Two	4		4
Three	10		10
Four	5	4	9
Five	9		9
Six	7	2	9
Seven	9	4	13
Eight	4	5	9
Nine	5	3	8
Ten	14	2	16
Eleven	35	18	53
State Total	105	41	146

---

[1] Buildings are totally accessible if clients with mobility handicaps can enter and use all rooms and move unaided between all floors--if a DAC utilizes more than one floor for providing DAC services

Table 9
Licensed Capacity by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		Pre-School			Adult			Combined		
Region	Year	Total	Average	N	Total	Average	N	Total	Average	N
One	1980	52	13.0	4	155	25.8	6	207	34.5	6
	1981	52	13.0	4	155	25.8	6	207	34.5	6
	1982	52	13.0	4	155	25.8	6	207	34.5	6
Two	1980	18	9.0	2	127	31.8	4	145	36.3	4
	1981	18	9.0	2	127	31.8	4	145	36.3	4
	1982	18	9.0	2	127	31.8	4	145	36.3	4
Three	1980	94	15.7	6	505	50.5	10	599	59.9	10
	1981	94	15.7	6	506	50.6	10	600	60.0	10
	1982	94	15.7	6	506	50.6	10	600	60.0	10
Four	1980			0	261	37.3	7	261	37.3	7
	1981			0	276	39.4	7	276	39.4	7
	1982			0	284	40.6	7	284	40.6	7
Five	1980			0	215	35.8	6	215	35.8	6
	1981			0	217	36.2	6	217	36.2	6
	1982			0	191	38.2	5	191	38.2	5
Six	1980	60	10.0	6	298	33.1	9	358	39.8	9
	1981	63	10.5	6	330	36.7	9	393	43.7	9
	1982	62	10.3	6	331	36.8	9	393	43.7	9
Seven	1980	77	19.3	4	374	46.8	8	451	56.4	8
	1981	93	23.3	4	403	50.4	8	496	62.0	8
	1982	109	27.3	4	444	55.5	8	553	69.1	8
Eight	1980	7		1	326	40.8	8	333	41.6	8
	1981	7		1	330	41.3	8	337	42.1	8
	1982	7		1	339	42.4	8	346	43.3	8
Nine	1980	75	10.7	7	229	28.6	8	304	38.0	8
	1981	69	11.5	6	233	29.1	8	302	37.8	8
	1982	53	13.3	4	271	33.9	8	324	40.5	8
Ten	1980	161	17.9	9	436	33.5	13	597	45.9	13
	1981	179	19.9	9	457	35.2	13	636	48.9	13
	1982	189	21.0	9	472	36.3	13	661	50.8	13
Eleven	1980	548	30.4	18	1,317	62.7	21	1,865	69.1	27
	1981	573	31.8	18	1,402	66.8	21	1,975	73.1	27
	1982	539	31.7	17	1,515	72.1	21	2,054	76.1	27
State Total	1980	1,092	19.2	57	4,243	42.4	100	5,335	50.3	106
	1981	1,148	20.5	56	4,436	44.3	100	5,584	52.7	106
	1982	1,123	21.2	53	4,635	46.8	99	5,758	54.8	105

Average Daily Attendance. DAC enrollment records have been maintained by the Minnesota Department of Public Welfare for several years. During program year 1972-1973, there were 754 preschool children, 303 school-age children, and 1,366 adults participating in Minnesota DAC programs. The average daily attendance for preschoolers during this three year period was 744 (1980), 729 (1981), and 730 (1982 projected). The average daily attendance for school-age children was 47 (1980), 53 (1981), and 50 (1982). This figure has been decreasing steadily since 1972 and the inception of the Trainable Mentally Retarded Law. Adult daily attendance has increased steadily since 1972 and is expected to reach 3,646 in 1982. Table 10 presents these figures by region and statewide totals.

IV. IMPLICATIONS

One of the most important implications of this study is to continue this data base in cooperation with the developmental achievement centers and the Minnesota Department of Public Welfare. The 1982 fiscal data presented in this report should be considered projections only and should be updated over the next fiscal year to accurately reflect federal, state, and local budget changes.

This paper is the first in a series of three to be produced on the status of Minnesota Developmental Achievement Centers. The full implications of the fiscal data will be considered in the upcoming reports on personnel/program and client characteristics and movement.

Table 10
Average Daily Attendance by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region	Year	Infant			Pre-School			School Age			Adult			Combined		
		Total	X	N	Total	X	N	Total	X	N	Total	X	N	Total	X	N
One	1980			0	25	8.3	3	9	3.0	3	104	17.3	6	138	23.0	6
	1981			0	11	5.5	2	6	2.0	3	105	17.5	6	122	20.3	6
	1982			0	14	7.0	2	8	2.7	3	105	17.5	6	127	21.2	6
Two	1980	15	7.5	2	12	6.0	2	4		1	87	21.8	4	118	29.5	4
	1981	9		1	12	6.0	2	6	3.0	2	94	23.5	4	121	30.3	4
	1982	12	6.0	2	15	7.5	2	2		1	95	23.8	4	124	31.0	4
Three	1980	4		1	39	6.5	6	9	3.0	3	375	37.5	10	427	42.7	10
	1981	4		1	39	6.5	6	14	3.5	4	396	39.6	10	453	45.3	10
	1982	4		1	41	6.8	6	12	4.0	3	411	41.1	10	468	46.8	10
Four	1980	14		1			0	1		1	239	34.1	7	254	36.3	7
	1981	14		1			0	1		1	234	33.4	7	249	35.6	7
	1982	25	12.5	2			0	1		1	242	34.6	7	268	38.3	7
Five	1980			0			0	1		1	150	25.0	6	151	25.2	6
	1981			0			0	1		1	159	26.5	6	160	26.7	6
	1982			0			0			0	147	29.4	5	147	29.4	5
Six	1980	3		1	28	5.6	5	1		1	204	22.7	9	236	26.2	9
	1981	3		1	20	4.0	5	1		1	236	26.2	9	260	28.9	9
	1982	3		1	11	3.7	3	2	1.0	2	238	26.4	9	254	28.2	9
Seven	1980	1		1	41	10.3	4			0	311	38.9	8	353	44.1	8
	1981	1		1	45	11.3	4			0	321	40.1	8	367	45.9	8
	1982	2		1	58	14.5	4			0	338	42.3	8	398	49.8	8
Eight	1980			0	5		1	1		1	234	29.3	8	240	30.0	8
	1981			0	5		1	3		1	252	31.5	8	260	32.5	8
	1982			0	5		1	5		1	258	32.3	8	268	33.5	8

Table 10 (Continued)

Region	Year	Infant			Pre-School			School Age			Adult			Combined		
		Total	X	N	Total	X	N	Total	X	N	Total	X	N	Total	X	N
Nine	1980	3		1	50	7.1	7	2		1	171	21.4	8	226	28.3	8
	1981	5		1	49	8.2	6	2		1	189	23.6	8	245	30.6	8
	1982			0	37	12.3	3	2		1	189	23.6	8	228	28.5	8
Ten	1980	44	8.8	5	108	10.8	10	6	3.0	2	327	25.2	13	485	37.3	13
	1981	44	8.8	5	100	11.1	9	7	3.5	2	364	28.0	13	515	39.6	13
	1982	44	8.8	5	104	11.6	9	6	3.0	2	370	28.5	13	524	40.3	13
Eleven	1980	15	5.0	3	436	24.2	18	13	6.5	2	1,127	56.4	20	1,591	58.9	27
	1981	15	5.0	3	448	24.9	18	12	6.0	2	1,202	60.1	20	1,677	62.1	27
	1982	16	5.3	3	445	26.2	17	12	6.0	2	1,253	62.7	20	1,726	63.9	27
State Total	1980	99	6.6	15	744	13.3	56	47	2.9	16	3,329	33.6	99	4,219	39.8	106
	1981	95	6.8	14	729	13.8	53	53	2.9	18	3,552	35.9	99	4,429	41.8	106
	1982	106	7.1	15	730	15.5	47	50	3.1	16	3,646	37.2	98	4,532	43.2	105

V. REFERENCES

Bellamy, G., Horner, R. & Inman, D. *Vocational habilitation of severely retarded adults: A direct service technology*. Baltimore: University Park Press, 1979.

Bellamy, G., Sheehan, M., Horner, R., & Boles, S. Community programs for severely handicapped adults: An analysis. *Journal of the Association for Severely Handicapped*, 1980, *5* (4), 307-324.

Bergman, A. *A guide to establishing an activity center for mentally retarded persons*. Washington: U.S. Government Printing Office,1976.

Community Programs Division, Minnesota Department of Public Welfare. *Final statistical data for FY '77*. St. Paul: Author, 1977.

Community Programs Division, Minnesota Department of Public Welfare. *Final statistical data for FY '78.* St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. *DAC status report for July 1, 1978 - June 30, 1979.* St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. *DAC status report for July 1, 1979 - June 30, 1980.* St. Paul: Author, 1979.

Community Programs Division, Minnesota Department of Public Welfare. *Unit costs for developmental achievement centers July 1 - December 31, 1979.* St. Paul: Author, 1979.

Constantine, E. *Internal DPW memorandum: 1978-1979 status report-developmental achievement center grant-in-aid.* St. Paul: Department of Public Welfare, October 27, 1978.

Cortazzo, A. *Activity centers for retarded adults.* Washington, D.C.: President's Committee on Mental Retardation, 1972.

Demars, P. Training adult retardates for private enterprise. *American Journal of Occupational Therapy*. 1975, *29* (1), 24-25.

DHEW Report on Deinstitutionalization. Task Force on Deinstitutionalization of the Mentally Disabled. *Decision memorandum.* Washington, D.C.: Department of Health, Education and Welfare, Office of the Secretary, 1978.

Kaufman, B. *Internal DPW memorandum: 1979-1980 status report-developmental achievement centers.* St. Paul: Department of Public Welfare, November 27, 1979.

Mental Retardation Program Division, Minnesota Department of Public Welfare. *A study of daytime activity centers in Minnesota.* St. Paul: Author, 1976.

Mental Retardation Program Division, Minnesota Department of Public Welfare. *An analysis of client and program characteristics in Minnesota developmental achievement centers.* St. Paul: Author, 1978.

Mental Retardation Program Division, Minnesota Department of Public Welfare. Internal working paper: Results of adult DAC phone survey. St. Paul: Author, 1981.

Minnesota Developmental Achievement Center Association. DAC demographic data as of June 30, 1980. St. Paul: Author, 1980.

Research and Statistics Division, Office of Evaluation, Minnesota Department of Public Welfare. Persons enrolled in daytime activity centers, December 31, 1975, a special report. St. Paul: Author, 1976.

Salmon, D. Training and jobs for the mentally handicapped. Industrial Education, 1975, 24-25.

Social Services Division, Monitoring and Reporting Section, Minnesota Department of Public Welfare. Trends in social services: April - June, 1979. St. Paul: Author, 1979.

Wehman, P. Vocational training of the severely retarded: Expectations and potentials. Rehabilitation Literature, 1976, 37 (8), 233-236.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning, and Development.

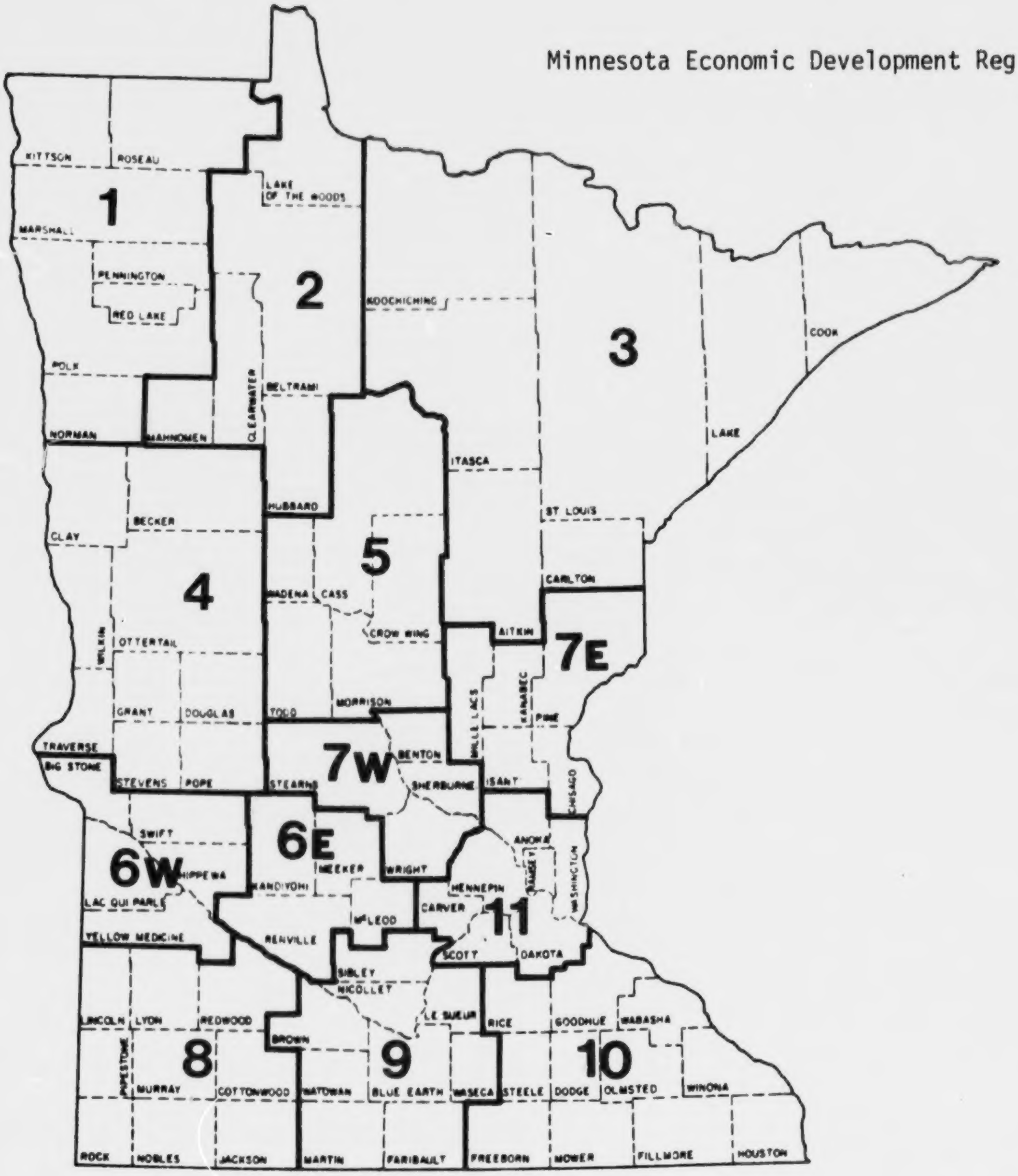
Bruce Balow, Ph.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #6: The Financial Status of Minnesota Developmental Achievement Centers: 1980-1982. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning, and Development, January, 1982.

APPENDIX

Minnesota Economic Development Regions


1
2
3
4
5
6E
6W
7E
7W
8
9
10
11
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
BELTRAMI
KOOCHICHING
COOK
LAKE
ITASCA
ST LOUIS
CARLTON
HUBBARD
CLAY
BECKER
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
CHIPPEWA
KANDIYOHI
MEEKER
WRIGHT
ANOKA
RAMSEY
WASHINGTON
LAC QUI PARLE
HENNEPIN
CARVER
MCLEOD
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
RICE
GOODHUE
WABASHA
LINCOLN
LYON
REDWOOD
BROWN
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 7

THE PROGRAM STATUS OF MINNESOTA DEVELOPMENTAL ACHIEVEMENT CENTERS: 1980-1982

Contents

Page
I. Introduction 1
II. Methodology 3
III. Results: 4
  Program Personnel 4
  Staff Training 7
  Staff Turnover 7
  Staff Wages 11
  Program Hours and Days 11
  Out-of-County Clients 17
  Parent/Client Fee Schedules 17
  Admission Policy Changes 17
IV. Implications 17
V. References 21
VI. Appendix 23

I. INTRODUCTION

The issues creating the impetus for this statewide study of developmental achievement centers (DACs) are the same issues that generated similar reports for the past several years. These issues are cost, purpose, and characteristics about the agencies and clients served. Similar to previous studies, there is a pressing need for information since the combined federal, state, and local cutbacks have an effect on community-based programs such as DACs. In addition, the Community Social Service Act (CSSA) went into effect on January 1, 1980, thus terminating the existing Department of Public Welfare data base developed for DACs. The potential use of Title XIX as one funding mechanism for DACs has created an intensified demand for information about clients, personnel, and services. This policy analysis paper is the second of three issues to present the results of a statewide study of all DACs in Minnesota. The first paper (Policy Analysis Series No. 6) focused on the financial status of DAC programs, the third report (Policy Analysis Series No. 8) will profile individual characteristics and movement trends.

A Department of Public Welfare report completed in 1978 provides historical information about DACs. Highlights from that report are presented as follows:

- Prior to 1961, few DACs existed in Minnesota (p. 22).
- In 1961, the Minnesota Legislature acted upon recommendations of the Interim Commission on the Problems of the Mentally Retarded, Handicapped and Gifted Children and funded a pilot project to develop nine DACs [Extra Sessions Law of Minnesota for 1961, Chapter 93.] (p. 22).
- In 1963, the Legislature appropriated funds for 14 additional centers under the Daytime Activity Center Act [Chapter 830 of the Session Law.] (p.23).
- Title IVA and Title XX provided federal support to the state with minimal financial commitment of counties (p. 23).
- The Trainable Mentally Retarded Act of 1971 made the State Department of Education responsible for all school age children, who could reasonably expect to benefit socially, emotionally, or physically from their service. DACs shift focus to serving only preschoolers and adults (p. 23).
- In 1975, the Minnesota Legislature provided a special appropriation to pay for 100 percent of approved costs for transportation of DAC clients to and from DACs (p. 23).
- In 1976, Assistant Commissioner Mike Weber requested a study of DACs including characteristics of the population, movement of clients, administrative standards and practices as well as unmet needs (p. 24).
- In 1976 an internal DPW working paper Policy Alternatives for Daytime Activity Centers highlighted major problems including the "absence of a clear goal for DACS as well as inadequate definitions of services, lack of information on clients being served, impact of services and measures of program effectiveness" (p. 3).
- In 1977, the DAC Evaluation Project was funded to develop an instrument to evaluate DACs (p. 24).
- In 1978, DPW completed a comprehensive study of 104 DACs serving 4,221 participants at a total cost of $15 million (p. 34).

A review of the literature on day program services revealed little information. National surveys of activity programs were undertaken in 1963, 1971, and 1979 (Cortazza, 1972; and Bellamy, Sheehan, Horner, & Boles, 1980). In 1963, there were 94 programs identified nationwide. By 1971, the number increased by 612 programs and tripled by 1979 to an estimated 1,989. The primary purpose of activity centers in 1971 was described by Cortazzo (1972) as:

> The severely mentally retarded have a potential and are entitled as human beings in our society to have their potential developed to capacity. It is the responsibility of society to develop and make maximum use of their potential (p.9).

The rapid deinstitutionalization during the 1970s as well as funding changes cited by Bellamy et al (1980) "drastically altered the scope, economics, and role of ADPs." The 1980 report continued:

> Today these programs represent a significant element of each state's adult service planning and have become critical in efforts to disperse residents of public institutions into community programs. Adaptive day programs frequently are viewed as providing the initial services for newly deinstitutionalized individuals [DHEW Report on Deinstitutionalization, 1978], and placement of individuals out of institutions frequently is contingent on availability of space in adaptive day programs (p. 309).

The summary of the Bellamy et al report was to call for greater coordination of policies and the development of practical service models that include greater opportunities for work and vocational outcomes (p. 321). Other literature on day programs includes technological applications for severely retarded adults (Bellamy, Horner, and Inman, 1979) guidebooks for establishing activity centers (Bergman, 1976), and specific training operations within centers (Salmon, 1975; Wehman, 1976; and DeMars, 1975).

The purpose of the current study of developmental achievement centers is to assess the financial, programmatic, and client status during 1980, 1981, and 1982. A three-year time period was selected because little information existed at a statewide level since January 1, 1980. The study was conducted as a joint effort of the Department of Public Welfare, the Minnesota Developmental Achievement Center Association, and the Minnesota Developmental Disabilities Program.

II. METHODOLOGY

The methodology for this study will be presented in abbreviated fashion. According to DPW, there were 108 DACs listed as licensed facilities. One facility is a satellite of the Glacial Ridge Training Center of Willmar State Hospital, one other facility receives no public money and refused to participate. None of the State Hospital DACs were included in the DPW list nor were they included in this study. Information about satellite DAC programs was collected from the respective central administrative offices. In order to get 100% participation, mail and telephone surveys were discarded in favor of onsite interviews. Interview studies typically yield a higher response rate, greater accuracy, and higher reliability than other methods. All 106 DACS participated in the study.

The general areas of investigation were outlined in a working document prepared by DPW and MNDACA. A joint meeting of representatives from DPW, DD, and MNDACA was held on September 1, 1981 to discuss the purpose, method, timeline, procedures, and questionnaire areas. Suggested questions were generated at that meeting. The Developmental Disabilities Program drafted the questionnaires with assistance from DPW staff. On September 11, 1981 the MNDACA Board of Directors gave its approval to the study. Revisions were made until September 15th, when a briefing was held with three interviewers from DPW and five interviewers from DD. On September 29, 1981, interview materials were distributed to all the surveyors. An interview packet contained:

1. an interviewer manual which outlined the purpose, selection of respondents, data privacy, question-by-question instructions, and sampling instructions;
2. cover sheet with identification information about the DAC;
3. administrator questionnaire;
4. financial questionnaire;
5. individual client forms;
6. eligible client roster form; and
7. respondent determination sheet.

Interviewers were responsible for setting up appointments with the assigned DACs. Interviews began on September 30, 1981, and ended in December 1981.

Editing and coding of the protocols occurred during November and December 1981 by staff of the Developmental Disabilities Program. Key to disc entry of the data was made by the Land Management Information Center of the Department of Energy, Planning and Development under contract with the Developmental Disabilities Program. The codebook (data file layout) and formats for the output were designed by the staff of the Developmental Disabilities Program. Copies of the questionnaires are available from the Developmental Disabilities Program by written request.

III. RESULTS

The results section will be presented in the following order: (a) program personnel, (b) staff training, (c) staff turnover, (d) staff wages, (e) program hours and days, (f) out-of-county clients, (g) parent/client fee schedules, and (h) policy changes.

Program Personnel. Table 1 displays the full-time equivalent (FTE) staff for Minnesota's developmental achievement centers during the past two years and projections for calendar year 1982. DACs reported FTEs by three major categories: administrative, professional and paraprofessional (program), and facility support (non-program) staff. Staff patterns are presented by regional and statewide totals.

Table 1
Type of Personnel (FTE) by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region	Year	Administrative Total	N	Professional/ Paraprofessional Total	N	Support-Nonprogram Total	N
ONE	1980	6.95	6	30.06	6	6.60	6
	1981	7.95	6	24.86	6	5.60	6
	1982	6.95	6	25.48	6	4.60	6
TWO	1980	4.25	4	25.73	4	2.91	4
	1981	4.38	4	26.23	4	2.95	4
	1982	4.38	4	26.23	4	2.95	4
THREE	1980	28.42	10	85.71	10	21.29	10
	1981	28.86	10	88.17	10	22.81	10
	1982	28.81	10	88.60	10	21.78	10
FOUR	1980	14.79	7	60.59	7	6.70	7
	1981	15.40	7	55.19	7	5.70	7
	1982	14.55	7	56.89	7	5.98	7
FIVE	1980	8.47	6	31.13	6	7.09	6
	1981	8.34	6	32.28	6	7.16	6
	1982	6.91	5	29.18	5	5.41	5
SIX	1980	11.69	9	37.81	9	9.33	9
	1981	13.40	9	51.04	9	9.00	9
	1982	15.64	9	52.67	9	8.66	9
SEVEN	1980	18.56	8	77.60	8	9.69	8
	1981	18.73	8	82.32	8	10.21	8
	1982	19.15	8	78.94	8	11.00	8
EIGHT	1980	12.89	8	50.81	8	6.71	8
	1981	12.89	8	48.56	8	6.49	8
	1982	12.89	8	48.90	8	6.45	8
NINE	1980	15.16	8	43.68	8	10.26	8
	1981	15.12	8	41.50	8	11.75	8
	1982	14.93	8	35.44	8	10.74	8

Table 1 (Continued)

Region	Year	Administrative Total	N	Professional/ Paraprofessional Total	N	Support-Nonprogram Total	N
TEN	1980	28.07	13	112.68	13	9.39	13
	1981	28.27	13	115.35	13	9.60	13
	1982	28.25	13	108.00	13	9.93	13
ELEVEN	1980	95.20	27	397.33	27	50.05	27
	1981	100.62	27	412.95	27	50.66	27
	1982	105.72	27	405.95	27	48.48	27
STATE TOTAL	1980	244.45	106	953.13	106	140.02	106
	1981	253.96	106	978.45	106	141.93	106
	1982	258.18	105	956.28	105	135.98	105

The statewide total administrative staff complement for 1981 was 253.96. Administrative staff included directors, executive directors, program coordinators, secretaries, accountants or bookkeepers. The average number of program staff during 1981 was 9.2. The total number of employees (978) included teachers/instructors who are or were at one time licensed or certified[1] teachers, noncertified and nonlicensed teachers, teacher aides and therapists. Support staff during 1981 totaled 142. Support, non-program services included maintenance, food service, and transportation.

A study by the Mental Retardation Program Division of the Department of Public Welfare (1978) reported that 104 centers employed 977 full-time and 232 part-time employees during 1978. The study did not report those figures in full-time equivalents. An earlier DPW study (Community Programs Division, 1976) stated that data from 96 of the 101 DACs operating in 1976 indicated a 1:2.5 staff to client ratio in preschool programs, a 1:5.2 ratio in adult day activity programs and a 1:6.5 ratio in work activity components. There were approximately 3,600 participants in those 96 programs.

---

[1] Licensed or certified teachers included all licensed teachers; not just those certified as special education instructors.

Table 2 provides a further breakdown of the three major personnel categories by job titles. The total FTE complement increased from 1,338 in 1980 to 1,374 in 1981 and is projected to decrease in 1982 to 1,350. The decline in employees is expected to occur among program and facility support staff. Further analysis of personnel will occur using a standard FTE equivalent such as 2,080 hours. DACs currently define FTE in several ways from 1,200 to 2,080 hours.

Staff Training. The Department of Public Welfare reported in 1978 that 26 percent of all full-time DAC staff were certified teachers. Fifty-four (54) percent had at least a four-year college degree; 51 percent of the part-time staff had college degrees. In this study respondents were asked to estimate the percentage of program staff (excluding administrators and facility support staff) with college degrees (four-year or more). Table 3 presents the results by region and by year.

The statewide average was 47 percent during 1981 and changed only moderately between 1980 (45 percent) and 1982 (50 percent--projected).

Staff Turnover. The issue of staff turnover has received greater attention in residential facilities than in day programs. Respondents were asked about the turnover rates for administrative and program staff during the years 1980 and 1981. Administrative staff were included in those calculations because turnover in these positions can be as disruptive to a program as changes in instructional personnel. The results appear in Table 4. The average turnover rate (statewide) was 17 percent in 1980. During 1981 the statewide average increased to 20 percent. Regional patterns are also presented in Table 4 with Region 4 reporting the highest turnover in 1980 (28%) and Region 7 reporting 28.9 percent in 1981.

DAC directors were also asked to identify the primary reasons why personnel left employment. The most frequently stated reasons are presented in rank order below:

1980	1981
- Salary or pay	- Seek other employment, career changes
- Family, maternity leave, or personal reasons	- Family, child care, maternity leave, personal reasons
- Career changes, better positions	- Moved or relocated
- Moved or relocated	- Layed off or terminated
- Returned to school	- Salary or pay
- Layed off or terminated	- Returned to school
	- Retired, health or medical reasons

The reasons are similar to results of other labor economics studies, particularly the human services field.

Table 2
Type of Personnel by Statewide Total[1]
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Type of Personnel	1980 State Total	1981 State Total	1982 State Total
A. Administration			
1. Directors/administrators	136.41	138.25	138.55
2. Secretaries/clerical	58.00	62.42	65.33
3. Accountants	25.19	25.60	25.72
4. Other	24.85	27.69	28.58
5. Subtotal	244.45	253.96	258.18
B. Professional/paraprofessional			
1. Teachers (cert.)	251.98	254.36	250.94
2. Teachers (noncert.)	274.74	283.65	274.07
3. Teacher aides	295.45	314.56	301.29
4. Therapists (speech, physical, occupational)	90.86	87.51	91.75
5. Other	40.10	38.37	38.23
6. Subtotal	953.13	978.45	956.28
C. Facility support-nonprogram			
1. Maintenance	28.84	29.42	28.49
2. Food service	26.06	24.40	20.62
3. Transportation	82.36	85.18	84.82
4. Other	2.76	2.93	2.05
5. Subtotal	140.02	141.93	135.98
D. State Total	1,337.60	1,374.34	1,350.44

---

[1] These figures are not adjusted using a standard FTE.

Table 3
Percent of Program Staff with College Degrees (Bachelor's or Master's) by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		1980			1981			1982	
Region	Mean	Range	N	Mean	Range	N	Mean	Range	N
ONE	40.2	0-100	6	35.7	0- 53	6	36.7	0- 54	6
TWO	35.8	14- 63	4	32.8	20- 45	4	32.8	20- 45	4
THREE	40.8	0- 84	10	41.6	15- 84	10	44.7	27- 84	10
FOUR	21.0	0- 40	7	38.3	0-100	7	45.0	0-100	7
FIVE	38.5	20- 71	6	35.2	20- 57	6	40.0	27- 71	5
SIX	30.6	0-100	9	30.7	0-100	9	32.9	0-100	9
SEVEN	35.6	8- 54	8	35.3	6- 57	8	37.3	7- 60	8
EIGHT	15.6	4- 30	8	21.4	7- 46	8	21.4	7- 46	8
NINE	54.4	33- 67	8	54.8	33- 75	8	59.4	38-100	8
TEN	46.3	20- 80	13	51.2	25- 80	13	53.0	25- 80	13
ELEVEN	69.2	29-100	27	72.4	30-100	27	73.5	25-100	27
STATE TOTAL	44.9	0-100	106	47.4	0-100	106	49.9	0-100	105

Table 4
Program and Administrative Staff Turnover Rate by Region and Statewide Total
(Minnesota DACs: 1980 and 1981, 100% reporting)

	1980			1981		
Region	Mean	Range	N	Mean	Range	N
ONE	13.2	0-50	6	9.67	0- 25	6
TWO	6.3	0-25	4	22.5	9- 50	4
THREE	23.0	0-54	10	21.6	0- 52	10
FOUR	28.0	0-70	6	26.9	0-100	7
FIVE	14.8	0-46	6	15.0	0- 44	6
SIX	7.0	0-38	9	14.3	0- 37	9
SEVEN	18.1	0-31	8	28.9	10- 75	8
EIGHT	19.3	0-84	8	25.5	0- 51	8
NINE	13.0	0-43	8	22.5	0- 60	8
TEN	15.9	0-50	13	10.9	0- 33	13
ELEVEN	19.7	0-55	27	22.1	0- 52	27
STATE TOTAL	17.1	0-84	105	20.1	0-100	106

Staff Wages. The average hourly wage paid to DAC program personnel is an issue of importance to most policymakers since personnel costs have a direct impact upon per diem rates. Personnel costs for program, support and administrative staff accounted for 62.4 percent of all DAC expenditures during 1980; 63.3 percent during 1981; and are projected to represent about 63.6 percent during 1982 (Policy Analysis Paper #6, 1982, page 6).

The average hourly wage for program personnel in community day programs is presented in Table 5. Program personnel are defined as "direct care" staff: teachers or instructors, teacher's aides, and therapists (consultants or in-house). They do not include personnel employed in administrative capacities or other support personnel such as food service, bus and van drivers or maintenance staff. The average hourly wage presented in Table 5 for program staff with four year degrees or more also includes therapists. Quite often, a DAC will utilize therapeutic services only intermitently--an hour a week, for example. The consultant hourly fee rate is, however, much higher than professional staff wages. Consequently, the average wage rate maximum for staff with a four-year degree or more is skewed upward.

The statewide average hourly wage was $7.06 during 1981 for employees with college degrees and $4.78 for program personnel with less than four-year degrees.

Program Hours and Days. In 1976 the Department of Public Welfare reported that the average days of operation for adult or combined adult/preschool programs (N=99) was 209 days. The average for preschool programs (N=18) was 176 days.

The Department of Public Welfare reported in 1978 that 81 of the 97 adult DAC programs in Minnesota provided more than 5.5 hours of service per day to their participants. Fourteen DACs provided from .10 to 4.5 hours of daily service to preschool participants; 52 of the 66 adult programs provided from 4.6 to 7.5 hours of programming per day.

The next three tables will present the average number of program days per year, the average number of program days per week, and the average number of program hours per day for each age group (infant, preschool, school age, and adult) as well as by region and year.

The average number of days per year for 1981 (statewide) was 90 for infants, 184 for preschool, 189 for school age, and 211 for adults. (See Table 6)

The average number of days per week (Table 7) remained stable across all programs during the three year period. The number of preschool programs, however, decreased from 58 in 1980 to an estimated 50 in 1982. The statewide average number of program days for 1981 was 2 for infants, 4.58 for preschool, 4.90 for school age, and 5 for adults. The average number of program hours is presented in Table 8 with similar stability noted in all three years.

Forty-one DACs reported having homebound programs in 1980; 29 of those programs were for infants. In 1981, 41 DACs again reported having homebound programs with 30 infant homebound programs. Thirty-eight (38) DACs estimated that they will offer homebound services during 1982 with 31 for infants.

Table 5
Average Hourly Wage for Program Personnel by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		Four Year Degree or More			Less than Four Year Degree		
Region	Year	Mean	Range	N	Mean	Range	N
ONE	1980	6.39	4.29- 8.32	6	4.45	2.86- 5.55	6
	1981	6.77	4.46- 8.55	6	4.77	2.86- 5.99	6
	1982	7.27	4.99- 9.31	6	4.83	3.57 5.99	6
TWO	1980	6.56	5.73- 8.49	4	4.04	3.56- 4.58	4
	1981	7.51	6.16- 9.39	4	4.50	4.10- 4.93	4
	1982	8.38	6.65- 9.39	4	4.86	4.10- 5.32	4
THREE	1980	6.97	5.70- 7.63	10	4.32	3.58- 4.88	10
	1981	7.48	6.29- 8.40	10	4.62	3.62- 5.50	10
	1982	8.04	6.57- 9.27	10	4.94	3.78- 5.96	10
FOUR	1980	5.95	4.25- 8.12	5	4.18	3.03- 6.61	6
	1981	6.33	4.25- 8.53	6	4.60	3.35- 6.94	6
	1982	6.77	4.46- 8.79	7	4.81	3.55- 7.15	5
FIVE	1980	6.74	5.67- 8.28	6	4.37	3.74- 5.12	6
	1981	7.12	6.07- 8.06	6	4.60	4.07- 5.13	6
	1982	7.51	6.24- 9.13	5	4.98	4.07- 5.50	5
SIX	1980	7.63	6.35- 9.55	8	4.29	3.10- 5.10	8
	1981	8.04	6.64- 8.06	8	4.66	3.35- 5.50	8
	1982	8.75	7.25- 9.75	8	4.93	3.62- 5.70	8
SEVEN	1980	6.64	4.65- 8.99	8	3.99	3.34- 4.60	8
	1981	6.90	4.65- 9.13	8	4.20	3.56- 4.75	8
	1982	7.57	5.58- 9.81	8	4.45	3.94- 5.27	8
EIGHT	1980	5.82	3.80- 9.33	8	3.96	3.71- 4.69	8
	1981	6.63	4.31-10.19	8	4.40	4.04- 5.35	8
	1982	7.10	4.75-11.25	8	4.75	4.13- 5.56	8
NINE	1980	6.63	4.63- 9.36	8	3.84	3.40- 4.60	8
	1981	7.11	5.75- 9.83	8	4.45	3.75- 5.06	8
	1982	8.24	6.18-10.61	8	5.02	4.00- 5.93	7

Table 5-(Continued)

Region	Year	Four Year Degree or More			Less than Four Year Degree		
		Mean	Range	N	Mean	Range	N
TEN	1980	6.73	4.95- 8.58	13	4.12	3.47- 4.64	13
	1981	6.96	5.31- 9.83	13	4.44	3.65- 4.88	13
	1982	7.73	5.97- 9.43	13	4.69	3.94- 5.31	13
ELEVEN	1980	6.86	4.95- 8.77	27	5.16	3.66- 7.70	25
	1981	6.97	5.18- 8.77	27	5.59	3.86- 9.18	25
	1982	7.70	5.40- 9.76	27	5.59	3.86- 9.18	25
STATE TOTAL	1980	6.71	3.80- 9.55	103	4.40	2.86- 7.70	102
	1981	7.06	4.25-10.19	104	4.78	2.86- 9.18	102
	1982	7.73	4.46-11.25	104	5.01	3.55- 9.18	100

Table 6
Average Number of Program Days Per Year by
Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		Infant		Preschool		School Age		Adult	
Region	Year	Mean	N	Mean	N	Mean	N	Mean	N
ONE	1980			166	4	203	3	218	6
	1981			133	3	182	3	211	6
	1982			132	3	182	3	211	6
TWO	1980			215	2	240	1	200	4
	1981			215	2	215	2	210	4
	1982			215	2	215	2	210	4
THREE	1980	134	2	189	6	189	3	217	10
	1981	134	2	205	6	164	4	215	10
	1982	134	2	206	6	164	4	215	10
FOUR	1980					218	2	173	7
	1981					205	1	199	7
	1982					133	2	195	7
FIVE	1980					208	1	199	6
	1981					210	1	196	6
	1982							184	5
SIX	1980	72	3	128	6	172	3	194	9
	1981	98	2	123	6	174	3	202	9
	1982	170	1	165	5	174	3	199	9
SEVEN	1980	69	3	181	4	172	2	202	8
	1981	77	3	187	4	178	2	202	8
	1982	80	3	186	4	178	2	202	8
EIGHT	1980			205	1	175	1	205	8
	1981			205	1	175	1	207	8
	1982			205	1	175	1	207	8
NINE	1980	39	2	191	7	217	4	227	8
	1981	37	2	159	6	217	4	225	8
	1982	55	2	161	3	217	4	225	8
TEN	1980	43	4	182	10	198	6	209	13
	1981	46	4	196	9	198	6	209	13
	1982	49	4	197	9	203	5	209	13
ELEVEN	1980	113	9	186	18	164	3	221	20
	1981	115	9	203	18	168	3	222	20
	1982	118	9	204	17	168	3	222	20
STATE TOTAL	1980	85	23	180	58	195	29	208	99
	1981	90	22	184	55	189	30	211	99
	1982	97	21	191	50	184	29	210	98

Table 7
Average Number of Program Days Per Week by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		Infant		Preschool		School Age		Adult	
Region	Year	Mean	N	Mean	N	Mean	N	Mean	N
ONE	1980			4.25	4	5.00	3	5.00	6
	1981			3.33	3	5.00	3	5.00	6
	1982			3.33	3	5.00	3	5.00	6
TWO	1980			5.00	2	5.00	1	5.00	4
	1981			5.00	2	5.00	2	5.00	4
	1982			5.00	2	5.00	2	5.00	4
THREE	1980	3.00	2	4.67	6	5.00	3	5.00	10
	1981	3.00	2	5.00	6	5.00	4	5.00	10
	1982	3.00	2	5.00	6	5.00	4	5.00	10
FOUR	1980					5.00	2	5.00	7
	1981					5.00	1	5.00	7
	1982					5.00	2	5.00	7
FIVE	1980					5.00	1	5.00	6
	1981					5.00	1	5.00	6
	1982							4.80	5
SIX	1980	2.33	3	3.67	6	5.00	3	5.00	9
	1981	3.00	2	3.67	6	5.00	3	5.00	9
	1982	5.00	1	4.60	5	5.00	3	5.00	9
SEVEN	1980	1.00	3	4.50	4	5.00	2	5.00	8
	1981	1.00	3	4.50	4	5.00	2	5.00	8
	1982	1.00	3	4.50	4	5.00	2	5.00	8
EIGHT	1980			5.00	1	5.00	1	5.00	8
	1981			5.00	1	5.00	1	5.00	8
	1982			5.00	1	5.00	1	5.00	8
NINE	1980	1.00	2	4.57	7	5.00	4	5.00	8
	1981	1.00	2	4.33	6	5.00	4	5.00	8
	1982	1.50	2	3.67	3	5.00	4	5.00	8
TEN	1980	1.00	4	4.50	10	5.00	6	5.00	13
	1981	1.00	4	4.78	9	5.00	6	5.00	13
	1982	1.00	4	4.78	9	5.00	5	5.00	13
ELEVEN	1980	2.00	9	4.83	18	3.67	3	5.00	20
	1981	2.00	9	4.89	18	4.00	3	5.00	20
	1982	2.00	9	4.88	17	4.00	3	5.00	20
STATE TOTAL	1980	1.74	23	4.55	58	4.86	29	5.00	99
	1981	1.77	22	4.58	55	4.90	30	5.00	99
	1982	1.86	21	4.66	50	4.90	29	4.99	98

Table 8
Average Number of Program Hours Per Day by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

		Infant		Preschool		School Age		Adult	
Region	Year	Mean	N	Mean	N	Mean	N	Mean	N
ONE	1980			5.75	4	6.33	3	6.17	6
	1981			5.33	3	6.33	3	6.17	6
	1982			5.33	3	6.33	3	6.17	6
TWO	1980			5.00	2	7.00	1	6.25	4
	1981			5.00	2	6.50	2	6.25	4
	1982			5.00	2	6.50	2	6.25	4
THREE	1980	4.00	2	6.17	6	6.00	3	6.10	10
	1981	4.00	2	6.17	6	5.25	4	6.10	10
	1982	4.00	2	6.17	6	5.25	4	6.10	10
FOUR	1980					6.00	2	6.00	7
	1981					6.00	1	6.00	7
	1982					6.00	2	6.00	7
FIVE	1980					6.00	1	6.33	6
	1981					6.00	1	6.33	6
	1982							6.40	5
SIX	1980	2.33	3	3.83	6	6.00	3	5.89	9
	1981	3.00	2	4.00	6	6.00	3	5.89	9
	1982	5.00	1	4.80	5	6.00	3	5.89	9
SEVEN	1980	2.00	3	5.75	4	4.50	2	6.25	8
	1981	2.00	3	4.75	4	4.50	2	6.25	8
	1982	2.00	3	4.75	4	4.50	2	6.25	8
EIGHT	1980			6.00	1	3.00	1	6.13	8
	1981			6.00	1	3.00	1	6.13	8
	1982			6.00	1	3.00	1	6.13	8
NINE	1980	1.50	2	5.00	7	5.25	4	6.38	8
	1981	1.50	2	4.67	6	5.25	4	6.38	8
	1982	1.00	2	4.00	3	5.25	4	6.38	8
TEN	1980	1.00	4	4.60	10	6.17	6	6.15	13
	1981	1.00	4	4.56	9	6.17	6	6.23	13
	1982	1.00	4	4.56	9	6.00	5	6.23	13
ELEVEN	1980	2.13	9	4.61	18	4.33	3	6.05	20
	1981	2.13	9	4.39	18	4.00	3	6.05	20
	1982	2.13	9	4.24	17	4.00	3	6.00	20
STATE TOTAL	1980	2.14	23	4.93	58	5.62	29	6.13	99
	1981	2.10	22	4.73	55	5.50	30	6.14	99
	1982	2.10	21	4.74	50	5.45	29	6.13	98

Out-of-County Clients. In addition to serving their own county residents, DACs also serve individuals from other counties. The extent and number of purchase of service (POS) contracts for out-of-county clients may have programmatic and financial implications for host county agencies. During 1980 there were 1,143 out-of-county clients enrolled in Minnesota's 106 DACs. There were 1,244 out-of-county clients reported for 1981 and the DAC directors expect 1,111 out-of-county clients enrolled in 1982. Table 9 presents both regional and statewide numbers for all three years.

Parent/Client Fee Schedule. In 1981 there were 11 DACs reporting a fee schedule for infants, 17 DACs reporting a schedule for preschoolers, and 7 DACs reporting a fee schedule for adults. No fee schedules were reported by DACs in Regions 1, 3, 5, and 8.

Parent/client contributions are probably more extensive than reported. In some localities, family fees are paid directly to the county;hence the DAC would not report having a fee schedule even though fees are being collected. DACs also reported that they expect revenue derived from family support/fee payments to increase slightly during 1982 (Policy Analysis Paper #6, 1982, pages 6 and 7).

Admission Policy Changes. DAC directors were asked to report recent and anticipated changes in agency admission and demission policies (because of budget considerations) for their infant/preschool and adult programs. The responses of the DACs are summarized in Table 10. Other policy and program changes due to budgetary considerations will be presented in Policy Analysis Paper #8.

IV. IMPLICATIONS

The results presented in this paper provide the necessary baseline to assess the potential changes in DACs due to budget considerations. The total staff complement of DACs has been increasing at a steady rate, but is projected to decline in 1982, particularly in program and support staff. About one-half of the program personnel have college degrees which is comparable to previous DPW reports. Turnover is lower than residential facilities but showed a 3% increase from 1980 to 1981. There is stability in the reported number of days and hours provided, but given the 1,244 out-of-county placement contracts and budget constraints, there may be complex changes at the individual level in terms of units of service received. Finally, the type of admission and demission policy changes presented in Table 10 verify informal reports about "retirement" policies.

The third paper in this series will examine individual client characteristics and movement in and out of DACs. In addition, a summary of other policy and program changes due to budget considerations will be presented.

Table 9
Total Number of Out-of-County Placements by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Region	1980 Total Number	N	1981 Total Number	N	1982 Total Number	N
ONE	33	5	31	5	31	5
TWO	32	4	40	4	25	3
THREE	19	7	58	8	34	6
FOUR	103	7	99	7	55	4
FIVE	39	6	34	6	19	5
SIX	101	8	118	8	101	6
SEVEN	158	8	166	8	165	8
EIGHT	122	6	142	8	132	6
NINE	68	6	73	7	75	8
TEN	71	12	78	12	68	11
ELEVEN	397	26	405	23	406	22
STATE TOTAL	1,143	95	1,244	96	1,111	84

Table 10
Admission Policy Changes
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Infant/Preschool Admission Policy Changes for 1981	N
Preschool programs were discontinued	3
Programs emphasized "non-maintenance" persons	1
Admission dependent upon meeting more categorical criteria, e.g. physician's referral; MR or CP diagnosis	3
Behavior problems, one-to-one staffing needs more closely evaluated	1
Administrative procedures streamlined	2
Needs of more severely disabled given higher priority	4
	14

Infant/Preschool Admission Policy Changes for 1982 (Anticipated)	N
Programs to emphasize more severely handicapped children	4
More severely disabled children might receive lower priority	2
Preschool or homebound programs discontinued	3
Reduction in program options or hours for clients, e.g. full-time services	3
Will initiate a fee schedule	1
	13

Infant/Preschool Demission Policy Changes for 1981	N
Placed greater emphasis upon attendance by clients	2
Less severely disabled children were more likely to be demitted	1
	3

Infant/Preschool Demission Policy Changes for 1982 (Anticipated)	N
Children with less severe disabilities may no longer be eligible for DAC services	1

Adult Admission Policy Changes for 1981	N
Admission criteria more responsive to county mandates, e.g. client needs for services, number of county residents served, and transportation	4
Closer scrutiny of client ages, e.g. trial admissions for people over 65 years old	5
Lower functioning applicants given higher priority	1
Behavior problems scrutinized more closely	2
Client capacity to benefit evaluated more closely, e.g. "maintenance" and ability to progress, parttime programming	5
	17

Table 10-Continued

Adult Admission Policy Changes for 1982 (Anticipated)	N
Closer scrutiny of applicant age, e.g. categorical age limits, capacity to benefit, county mandates	9
Criteria more responsive to county mandates, e.g. "custodial" services, program hours	6
May establish limits on behavior and medical problems	2
Restricted enrollments because of budgets, county mandates, staff shortages	2
Will admit clients in wheelchairs--new building	1
Possible shortened hours for "maintenance" rather than retirement	2
Applicants with more severe disabilities are given higher priority	1
Full-time enrollment only	1
Closer evaluation of other "provider" resources, e.g. family homes or nursing homes	1
Severity of handicaps considered more closely	1
	26

Adult Demission Policy Changes for 1981	N
Client age considered, e.g. capacity to benefit	3
Attendance standards instituted	1
Severity of behavior problems considered	1
Out-of-county contracts reviewed, e.g. payment for full cost of services	1
	6

Adult Demission Policy Changes for 1982 (Anticipated)	N
Client age considered, e.g. retirement; categorical limits; county mandates; county limits on purchase of service clients; maintenance; years of participation	21
Transportation cost, problems may be considered	1
May establish limits on behavior or medical problems	4
Lower functioning clients may be more likely to be demitted	4
Push to move people into SILs and sheltered work	1
Possible cutback in service days	1
Restricted enrollments, county residents	2
Review of out-of-county contracts, must accept full-time services	1
Review of programming capacity of residential placements, e.g. nursing homes	1
	36

---

[1] There were 47 clients aged 65 years or older enrolled in the 21 agencies which reported probable age-related demission policy changes for 1982. There were an additional 174 clients aged 50 to 65 years old enrolled in those 21 DACs.

V. REFERENCES

Bellamy, G., Horner, R. & Inman, D. *Vocational habilitation of severely retarded adults: A direct service technology*. Baltimore: University Park Press, 1979.

Bellamy, G., Sheehan, M., Horner, R., & Boles, S. Community programs for severely handicapped adults: An analysis. *Journal of the Association for Severely Handicapped*, 1980, *5* (4), 307-324.

Bergman, A. *A guide to establishing an activity center for mentally retarded persons*. Washington: U.S. Government Printing Office,1976.

Community Programs Division, Minnesota Department of Public Welfare. *Final statistical data for FY '77*. St. Paul: Author, 1977.

Community Programs Division, Minnesota Department of Public Welfare. *Final statistical data for FY '78.* St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. *DAC status report for July 1, 1978 - June 30, 1979.* St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. *DAC status report for July 1, 1979 - June 30, 1980.* St. Paul: Author, 1979.

Community Programs Division, Minnesota Department of Public Welfare. *Unit costs for developmental achievement centers July 1 - December 31, 1979.* St. Paul: Author, 1979.

Constantine, E. *Internal DPW memorandum: 1978-1979 status report-developmental achievement center grant-in-aid.* St. Paul: Department of Public Welfare, October 27, 1978.

Cortazzo, A. *Activity centers for retarded adults.* Washington, D.C.: President's Committee on Mental Retardation, 1972.

Demars, P. Training adult retardates for private enterprise. *American Journal of Occupational Therapy*. 1975, *29* (1), 24-25.

DHEW Report on Deinstitutionalization. Task Force on Deinstitutionalization of the Mentally Disabled. *Decision memorandum.* Washington, D.C.: Department of Health, Education and Welfare, Office of the Secretary, 1978.

Kaufman, B. *Internal DPW memorandum: 1979-1980 status report-developmental achievement centers.* St. Paul: Department of Public Welfare, November 27, 1979.

Mental Retardation Program Division, Minnesota Department of Public Welfare. *A study of daytime activity centers in Minnesota.* St. Paul: Author, 1976.

Mental Retardation Program Division, Minnesota Department of Public Welfare. *An analysis of client and program characteristics in Minnesota developmental achievement centers.* St. Paul: Author, 1978.

Mental Retardation Program Division, Minnesota Department of Public Welfare. Internal working paper: Results of adult DAC phone survey. St. Paul: Author, 1981.

Minnesota Developmental Achievement Center Association. DAC demographic data as of June 30, 1980. St. Paul: Author, 1980.

Research and Statistics Division, Office of Evaluation, Minnesota Department of Public Welfare. Persons enrolled in daytime activity centers, December 31, 1975, a special report. St. Paul: Author, 1976.

Salmon, D. Training and jobs for the mentally handicapped. Industrial Education, 1975, 24-25.

Social Services Division, Monitoring and Reporting Section, Minnesota Department of Public Welfare. Trends in social services: April - June, 1979. St. Paul: Author, 1979.

Wehman, P. Vocational training of the severely retarded: Expectations and potentials. Rehabilitation Literature, 1976, 37 (8), 233-236.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

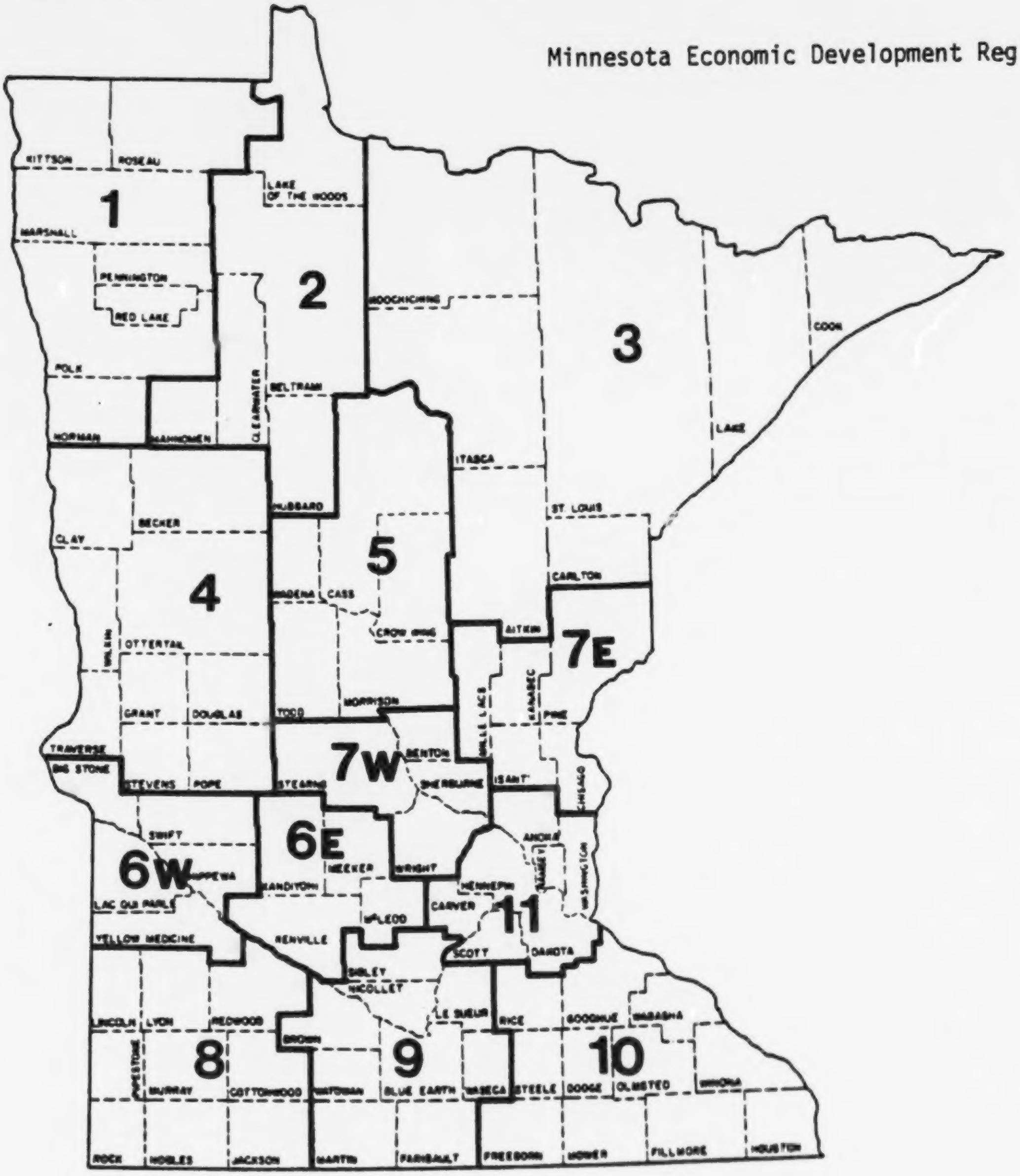
Bruce Balow, Ph. D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #7: The Program Status of Minnesota Developmental Achievement Centers: 1980-1982. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, January, 1982.

APPENDIX

Minnesota Economic Development Regions


1
2
3
4
5
6W
6E
7W
7E
8
9
10
11
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
BELTRAMI
KOOCHICHING
COOK
LAKE
ITASCA
ST LOUIS
CARLTON
HUBBARD
BECKER
CLAY
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
CHIPPEWA
KANDIYOHI
MEEKER
WRIGHT
ANOKA
RAMSEY
WASHINGTON
HENNEPIN
CARVER
LAC QUI PARLE
YELLOW MEDICINE
RENVILLE
McLEOD
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
RICE
GOODHUE
WABASHA
LINCOLN
LYON
REDWOOD
BROWN
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 8

THE CLIENT STATUS OF MINNESOTA DEVELOPMENTAL ACHIEVEMENT CENTERS: 1980-1982

Contents

Page

I. Introduction 1
II. Methodology 3
III. Results 4
  Characteristics of Client Population 4
    Age 4
    Level of Functioning 6
    Place of Residence 9
  Client Movement 11
    New Admissions 11
    Readmissions 11
    Transfers 11
    Deaths 11
  Clients Ready for Work Placement 15
  Waiting Lists 17
IV. Implications 17
V. References 19
VI. Appendix 21

I. INTRODUCTION

The issues creating the impetus for this statewide study of developmental achievement centers (DACs) are the same issues that generated similar reports for the past several years. These issues are cost, purpose, and characteristics about the agencies and clients served. Similar to previous studies, there is a pressing need for information since the combined federal, state, and local cutbacks have an effect on community-based programs such as DACs. In addition, the Community Social Services Act (CSSA) went into effect on January 1, 1980, thus terminating the existing Department of Public Welfare data base developed for DACs. The potential use of Title XIX as one funding mechanism for DACs has created an intensified demand for information about clients, personnel, and services. This policy analysis paper is the third of three issues to present the results of a statewide study of all DACs in Minnesota. The first paper (Policy Analysis Series No. 6) focused on the financial status of DAC programs, the second report (Policy Analysis Series No. 7) presented information on program and personnel.

DEVELOPMENTAL DISABILITIES PLANNING • DEPARTMENT OF ENERGY, PLANNING AND DEVELOPMENT
201 CAPITOL SQUARE BLDG. • 550 CEDAR STREET • ST. PAUL, MN 55101 • 612/296-4018

A Department of Public Welfare report completed in 1978 provides historical information about DACs. Highlights from that report are presented as follows:

- Prior to 1961, few DACs existed in Minnesota (p. 22).

- In 1961, the Minnesota Legislature acted upon recommendations of the Interim Commission on the Problems of the Mentally Retarded, Handicapped and Gifted Children and funded a pilot project to develop nine DACs [Extra Sessions Law of Minnesota for 1961, Chapter 93.] (p. 22).

- In 1963, the Legislature appropriated funds for 14 additional centers under the Daytime Activity Center Act [Chapter 830 of the Session Law.] (p. 23).

- Title IVA and Title XX provided federal support to the state with minimal financial commitment of counties (p. 23).

- The Trainable Mentally Retarded Act of 1971 made the State Department of Education responsible for all school age children, who could reasonably expect to benefit socially, emotionally, or physically from their service. DACs shift focus to serving only preschoolers and adults (p. 23).

- In 1975, the Minnesota Legislature provided a special appropriation to pay for 100 percent of approved costs for transportation of DAC clients to and from DACs (p. 23).

- in 1976, Assistant Commissioner Mike Weber requested a study of DACs including characteristics of the population, movement of clients, administrative standards and practices as well as unmet needs (p. 24).

- In 1976, an internal DPW working paper Policy Alternatives for Daytime Activity Centers highlighted major problems including the "absence of a clear goal for DACs as well as inadequate definitions of services, lack of information on clients being served, impact of services and measures of program effectiveness" (p. 3).

- In 1977, the DAC Evaluation Project was funded to develop an instrument to evaluate DACs (p. 24).

- In 1978, DPW completed a comprehensive study of 104 DACs serving 4,221 participants at a total cost of $15 million (p. 34).

A review of the literature on day program services revealed little information. National surveys of activity programs were undertaken in 1963, 1971, and 1979 (Cortazza, 1972; and Bellamy, Sheehan, Horner, & Boles, 1980). In 1963, there were 94 programs identified nationwide. By 1971, the number increased by 612 programs and tripled by 1979 to an estimated 1,989. The primary purpose of activity centers in 1971 was described by Cortazza (1972) as:

> The severely mentally retarded have a potential and are entitled as human beings in our society to have their potential developed to capacity. It is the responsibility of society to develop and make maximum use of their potential (p. 9).

The rapid deinstitutionalization during the 1970s as well as funding changes cited by Bellamy et al (1980) "drastically altered the scope, economics and role of ADPs." The 1980 report continued:

> Today these programs represent a significant element of each state's adult service planning and have become critical in efforts to disperse residents of public institutions into community programs. Adaptive day programs frequently are viewed as providing the initial services for newly deinstitutionalized individuals [DHEW Report on Deinstitutionalization, 1978], and placement of individuals out of institutions frequently is contingent on availability of space in adaptive day programs (p. 309).

The summary of the Bellamy et al report was to call for greater coordination of policies and the development of practical service models that include greater opportunities for work and vocational outcomes (p. 321). Other literature on day programs includes technological applications for severely retarded adults (Bellamy, Horner, and Inman, 1979), guidebooks for establishing activity centers (Bergman, 1976), and specific training operations within centers (Salmon, 1975; Wehman, 1976; and DeMars, 1975).

The purpose of the current study of developmental achievement centers is to assess the financial, programmatic, and client status during 1980, 1981, and 1982. A three-year time period was selected because little information existed at a statewide level since January 1, 1980. The study was conducted as a joint effort of the Department of Public Welfare, the Minnesota Developmental Achievement Center Association, and the Minnesota Developmental Disabilities Program.

II. METHODOLOGY

The methodology for this study will be presented in abbreviated fashion. According to DPW, there were 108 DACs listed as licensed facilities. One facility is a satellite of the Glacial Ridge Training Center of Willmar State Hospital, one other facility receives no public money and refused to participate. None of the State Hospital DACs were included in the DPW list nor were they included in this study. Information about satellite DAC programs was collected from the respective central administrative offices. In order to get 100% participation, mail and telephone surveys were discarded in favor of on-site interviews. Interview studies typically yield a higher response rate, greater accuracy, and higher reliability than other methods. All 106 DACs participated in the study.

The general areas of investigation were outlined in a working document prepared by DPW and MNDACA. A joint meeting of representatives from DPW, DD, and MNDACA was held on September 1, 1981, to discuss the purpose, method, timeline, procedures, and questionnaire areas. Suggested questions were generated at that meeting. The Developmental Disabilities Program drafted the questionnaires with assistance from DPW staff. On September 11, 1981, the MNDACA Board of Directors gave its approval to the study. Revisions were made until September 15, when a briefing was held with three interviewers from DPW and five interviewers from DD. On September 29, 1981, interview materials were distributed to all the surveyors. An interview packet contained:

1. an interviewer manual which outlined the purpose, selection of respondents, data privacy, question-by-question instructions, and sampling instructions;
2. cover sheet with identification information about the DAC;
3. administrator questionnaire;
4. financial questionnaire;
5. individual client forms;
6. eligible client roster form; and
7. respondent determination sheet.

Interviewers were responsible for setting up appointments with the assigned DACs. Interviews began on September 30, 1981, and ended in December 1981.

Editing and coding of the protocols occurred during November and December 1981 by staff of the Developmental Disabilities Program. Key to disc entry of the data was made by the Land Management Information Center of the Department of Energy, Planning and Development under contract with the Developmental Disabilities Program. Copies of the questionnaires are available from the Developmental Disabilities Program by written request.

III. RESULTS

Characteristics of Client Population

Age. Table 1 presents DAC enrollment totals for 1981 by age categories. These figures include all persons who were enrolled in Minnesota's DAC programs at the time of the survey--including homebound programs. The total enrollment for the state's 106 DAC programs is approximately 5,150. Over one-half of the clients (56.1% ; N = 2,892) are 21 to 50 years old; 73% (N = 3,764) are enrolled in adult programs. Seventeen (17) percent of all DAC clients are 50 years or older (N = 872). The school-age population is the smallest group (2.6%; N = 134).

It is difficult to analyze changes within the age structure of DAC populations during the past several years because previous surveys have used different age categories.

Table 1
Age of Clients by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

Region	Birth-2		2 - 4		4 - 21		21 - 50		50 - 65		65 +		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
ONE	0	0.0	7	1.0	10	7.5	78	2.7	18	2.6	7	4.0	120	2.3
TWO	9	2.0	12	1.5	8	6.0	73	2.5	16	2.3	3	1.7	121	2.4
THREE	16	3.5	46	5.7	18	13.4	333	11.5	96	13.7	36	20.8	545	10.6
FOUR	16	3.5	24	3.0	5	3.7	171	5.9	51	7.3	11	6.4	278	5.4
FIVE	0	0.0	0	0.0	9	6.7	114	3.9	44	6.3	6	3.5	173	3.4
SIX	7	1.5	20	2.5	6	4.5	170	5.9	57	8.2	13	7.5	273	5.3
SEVEN	28	6.0	46	5.7	13	9.7	229	7.9	87	12.5	26	15.0	429	8.3
EIGHT	7	1.5	11	1.4	10	7.5	195	6.7	51	7.3	10	5.8	284	5.5
NINE	17	3.7	33	4.1	11	8.2	159	5.5	33	4.7	8	4.6	261	5.1
TEN	43	9.5	95	11.9	17	12.7	286	9.9	67	9.6	15	8.7	523	10.2
ELEVEN	312	68.6	507	63.3	27	20.2	1,084	37.5	179	25.6	38	22.2	2,147	41.7
STATEWIDE TOTAL	455	100.0	801	100.0	134	100.0	2,892	100.0	699	100.0	173	100.0	5,154	100.0

The number of persons receiving DAC services has increased steadily over the past several years. There were 1,935 participants in 1972; by 1976 there were 3,679 DAC clients (Community Programs Division, 1976). Approximately 63 percent of the DAC clients in 1976 were 21 to 59 years old; about 22 percent were three to 21 years old.

Three and a half years ago, there were 4,221 persons receiving DAC services in Minnesota (Mental Retardation Program Division, 1978). The school-age population (ages 5 to 21) represented approximately 4.1 percent of all DAC clients. Participants who were 22 to 65 years old represented about 68 percent of the state's DAC enrollment.

The proportion of clients enrolled in adult programs has been increasing:

1976: (persons 21 years and older) 67.7% of all DAC participants;
1978: (persons 22 years and older) 71.5% of all DAC participants;
1981: (persons 21 years and older) 73.0% of all DAC participants.

Level of Functioning. Information reported in the 1978 DPW study indicated that most DACs served the total range of mental retardation. However, 39 (38%) of the 104 centers reported that none of their clients were classified as profoundly retarded. Forty-five (45) centers reported that 26 to 75 percent of their clients were severely retarded; four DACs reported that more than 75 percent of their clients were severely mentally retarded.

Table 2 reports the level of functioning of DAC clients during 1981. The figures are presented by region and statewide totals, and by program: infant, pre-school, school-age, adult. The statewide figures indicate that 2.9 percent of all DAC clients are not retarded[1] (N = 149), 4.6 percent are borderline (N = 235), 13.9 percent are mildly retarded (N = 716), 30.4 percent are classified as being moderately retarded (N = 1,566), 28.2 percent are severely retarded (N = 1,455) and 9.5 percent are profoundly mentally retarded (N = 492). DACs reported that the level of functioning was unknown or undetermined for 541 individuals--primarily infants and preschoolers.

---

[1] In addition to serving persons with mental retardation, developmental achievement centers may be licensed under State statute and DPW rule to provide day programming to persons with cerebral palsy.

Table 2
Level of Client Functioning by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

Region	Age Group	Not Retarded N	Borderline N	Mild N	Moderate N	Severe N	Profound N	Unknown N	Total N	Total %
ONE	Infant	0	0	0	0	0	0	0	0	0.0
	Pre-school	2	1	1	2	1	1	0	8	1.1
	School-age	1	2	0	4	1	0	0	8	10.1
	Adult	0	2	7	53	35	7	0	104	2.7
TWO	Infant	0	0	0	0	0	0	9	9	1.8
	Pre-school	0	0	4	5	3	0	0	12	1.6
	School-age	0	0	0	3	3	0	0	6	7.6
	Adult	0	1	14	28	38	13	0	94	2.5
THREE	Infant	0	0	0	5	7	4	12	28	5.5
	Pre-school	3	1	2	6	5	4	23	44	5.7
	School-age	0	1	2	6	3	3	1	16	20.2
	Adult	4	11	86	152	141	56	7	457	12.0
FOUR	Infant	0	0	0	0	0	0	40	40	7.9
	Pre-school	0	0	0	0	0	0	0	0	0.0
	School-age	0	0	1	0	0	0	0	1	1.3
	Adult	0	6	35	80	79	37	0	237	6.2
FIVE	Infant	0	0	0	0	0	0	0	0	0.0
	Pre-school	0	0	0	0	0	0	0	0	0.0
	School-age	0	0	0	1	0	0	0	1	1.3
	Adult	2	17	46	59	43	5	0	172	4.5
SIX	Infant	0	0	0	1	0	0	7	8	1.6
	Pre-school	7	0	0	0	3	0	5	15	1.9
	School-age	3	1	0	1	0	0	0	5	6.3
	Adult	0	6	35	93	95	10	6	245	6.5

Table 2 (Continued)

Region	Age Group	Not Retarded N	Borderline N	Mild N	Moderate N	Severe N	Profound N	Unknown N	Total N	Total %
SEVEN	Infant	7	1	2	5	0	1	5	21	4.2
	Pre-school	6	0	3	6	21	1	17	54	7.0
	School-age	0	0	1	2	1	1	2	7	8.9
	Adult	2	17	39	113	141	31	4	347	9.1
EIGHT	Infant	0	0	3	0	1	2	4	10	2.0
	Pre-school	1	0	2	0	0	0	5	8	1.1
	School-age	0	0	0	5	0	1	0	6	7.6
	Adult	1	12	42	80	77	47	1	260	6.9
NINE	Infant	0	0	0	0	0	0	5	5	1.0
	Pre-school	0	0	0	1	1	0	43	45	5.8
	School-age	0	0	0	3	0	3	0	6	7.6
	Adult	0	4	38	76	58	29	0	205	5.4
TEN	Infant	2	8	4	9	0	2	10	35	6.9
	Pre-school	11	16	18	21	11	6	25	108	14.0
	School-age	1	1	2	0	0	5	1	10	12.7
	Adult	2	9	58	95	132	54	20	370	9.7
ELEVEN	Infant	40	23	31	67	37	7	144	349	69.1
	Pre-school	46	49	89	109	40	12	131	476	61.8
	School-age	0	0	1	5	1	2	4	13	16.4
	Adult	8	46	150	470	477	148	10	1,309	34.5
STATE TOTAL	Infant	49	32	40	87	45	16	236	505	100.0
	Pre-school	76	67	119	150	85	24	249	770	100.0
	School-age	5	5	7	30	9	15	8	79	100.0
	Adult	19	131	550	1,299	1,316	437	48	3,800	100.0

Place of Residence. DPW reported in 1976 (Community Programs Division) that one-half (49.9%) of the DAC clients lived in their natural home and one-third (34.2%) lived in Rule 34 (ICF-MR) facilities. Seven (7) percent were in foster homes.

Client living arrangements were similar in 1978 (Mental Retardation Program Division): 49.6 percent were living in their natural or adoptive homes; 34.6 percent were living in ICF-MR settings; 5.4 percent were living in foster homes.

Table 3 indicates the type of client residences during 1981. A higher percentage of clients now live in ICF-MR/group homes: 41.3 percent. DACs reported that 45.8 percent (N = 2,362) lived in their natural or adoptive home and 4.5 percent (N = 231) were living in foster care homes.

Living arrangements for 1976 and 1978 are summarized below:

1976 DPW Report

	N	%
Natural homes	1,597	49.9
Independent living	42	1.3
Apartment training program	18	.5
Foster homes	227	7.0
Board and care	43	1.3
Rule 34 residence	1,096	34.2
Licensed SNF	165	5.1
Miscellaneous	10	.3
(not reported)	481	---
	3,679	

1978 DPW Report

	N	%
Natural homes	2,091	49.5
Independent living	9	.2
Semi-independent	15	.4
Foster home	233	5.5
ICF/G B&L	356	8.4
ICF/MR	1,457	34.5
SNF	60	1.4
	4,221	

Table 3
Place of Client Residence by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

	Region											State Total	
Residence	1	2	3	4	5	6	7	8	9	10	11	N	%
Natural/adoptive home	57	51	217	120	62	98	171	79	133	263	1,111	2,362	45.8
Indep. (semi) living	0	2	17	0	3	4	15	4	4	4	14	67	1.3
Foster care home	2	1	36	36	27	8	25	4	5	3	84	231	4.5
Board & lodging/care home	1	12	35	4	11	1	10	3	2	9	16	104	2.0
ICF-MR/group home	46	55	211	102	52	146	189	183	103	181	861	2,129	41.3
Nursing home	14	0	27	16	18	16	18	11	14	38	60	232	4.5
Other	0	0	2	0	0	0	1	0	0	25	1	29	0.6
Total	120	121	545	278	173	273	429	284	261	523	2,147	5,154	100.0

157

158

Movement

Client Movement. One measure of the effectiveness of day program services is the degree of client movement. Lack of movement may, however, also indicate a shortage of resources in critical areas: employment opportunities (sheltered or competitive), residential options or other necessary community support services.

Client movement within Minnesota's DACs can be determined by examining four client statistics[1]: new admissions, readmissions, transfers and deaths. For this analysis the infants, pre-schoolers and school-age children have been combined. As a group they show greater movement than do adult clients. This higher level of movement should be expected--primarily because of the public school system's responsibilities under state and federal legislation to provide services to school-age children.

Statewide movement of DAC clients is summarized below:

	Infant/Pre-school/ School age			Adult		
	1980	1981	1982	1980	1981	1982
New admissions	943	912	774	555	613	489
Readmissions	37	28	25	70	89	65
Transfers[2]	(797)	(941)	(645)	(330)	(389)	(297)
Deaths[2]	(22)	(18)	NA	(28)	(12)	NA
Net Movement	161	(19)	154	267	301	257

The figures reported for infants, preschoolers and school-age children indicate greater movement than do the average daily attendance figures reported in Policy Analysis Series No. 6 (page 24). The difference may be attributable, in part, to reporting errors. The movement figures indicated here include homebound programs. Average daily attendance figures are for in-center programs only. Additionally, movement figures reflect enrollment rather than attendance numbers. The same is true for movement and attendance figures for the adult DAC clients

Movement figures must be considered along with waiting list figures and the number of people waiting to go into other programs such as work activity and sheltered workshops. There is a need for movement in the system.

---

[1] New admission - an individual entering an agency for the first time; a client moving from one program to another program within an agency was not a new admission.

Readmission - a client who entered, left the program and then re-entered the agency.

Transfer - a client who left the program due to "graduation," promotion to sheltered work, return to a state hospital, entry into public school, retirement.

Deaths - clients who died during the time period indicated.

[2] Parentheses indicate a negative value, i.e., movement out of DAC programs

The Department of Public Welfare (1976) reported that 615 clients were discharged from DACs in 1975. DPW estimated that the recidivism rate was 6.6 percent in 1975--40 clients returned to the DAC after discharge during that year.

The number of clients entering and leaving DAC programs is presented by region and statewide totals in Table 4.

Table 4
Number of Clients Entering and Leaving Programs by Region and Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100 % reporting)

		Infants/Preschool/School Age				Adults			
Region	Year	New Admiss.	Readmiss.	Transfers	Deaths	New Admiss.	Readm.	Transfers	Deaths
ONE	1980	6	0	5	0	11	3	6	0
	1981	3	0	10	0	5	1	10	0
	1982	13	0	6	-	15	2	7	-
TWO	1980	8	0	8	1	13	0	2	1
	1981	2	0	1	0	12	0	3	0
	1982	6	1	4	-	8	0	0	-
THREE	1980	50	0	45	4	71	0	61	5
	1981	51	0	48	2	76	0	48	0
	1982	49	0	50	-	74	0	50	-
FOUR	1980	3	0	1	0	38	2	13	2
	1981	17	0	5	0	22	1	16	0
	1982	13	0	7	-	24	0	10	-
FIVE	1980	0	0	0	0	31	2	23	6
	1981	0	0	0	0	22	4	20	1
	1982	0	0	0	-	17	0	5	-

Table 4 (Continued)

SIX	1980	12	23	6	2	35	32	21	2
	1981	15	9	12	1	42	43	18	3
	1982	11	14	19	-	23	53	10	-
SEVEN	1980	35	0	25	2	40	2	26	4
	1981	36	0	33	3	48	14	46	0
	1982	30	1	17	-	32	1	31	-
EIGHT	1980	7	0	5	0	20	1	16	2
	1981	17	0	19	1	32	2	18	1
	1982	1	0	5	-	15	0	12	-
NINE	1980	45	1	43	0	33	9	14	2
	1981	40	2	66	1	29	6	26	0
	1982	26	1	18	-	27	2	17	-
TEN	1980	98	7	75	2	69	8	32	3
	1981	69	12	67	0	42	6	30	2
	1982	78	8	57	-	51	1	33	-
ELEVEN	1980	679	6	584	11	194	11	116	1
	1981	662	5	680	10	283	12	154	5
	1982	547	0	462	-	203	6	122	-
STATEWIDE TOTAL	1980	943	37	797	22	555	70	330	28
	1981	912	28	941	18	613	89	389	12
	1982	774	25	645	-	489	65	297	-

Clients Ready for Work Placement

The Department of Public Welfare (1976) reported that 615 persons were discharged from DAC programs in 1975. Twenty-three (23) were discharged to work activity; 103 individuals were discharged to sheltered workshops and 272 were transferred to schools.

DACs estimated in 1976 that approximately 87 percent of the adult clients could benefit from work activity and 50 percent could benefit from sheltered work. DACs also indicated that about 7.2 percent (N = 244) of the adult population would be placed in a sheltered workshop if those openings were available.

DACs reported in 1978 that 192 clients who were not participating in work activity would be recommended for those programs if the services were available (Mental Retardation Program Division, 1978). Seventy-one (71) DACs also indicated that 370 clients were ready for placement in sheltered workshops. In 1978 there were approximately 2,300 adult DAC clients between the ages of 20 and 60 years.

According to the estimates of DAC administrators, there are 454 clients ready to move into work activity components (either within the center or in another agency), and 240 individuals ready to move into sheltered work situations.

DAC administrators stated a number of reasons why adult clients could not participate in work activity or be promoted to sheltered work. The reasons indicated in 1981 are similar to those reported in the 1976 DPW study and are summarized below:

- availability of work activity/sheltered work slots is limited;

- necessary community support services such as adequate residential living arrangements or transportation services are lacking or limited;

- parents or clients are reluctant to make the changes (e.g., do not want to leave the community/home; work activity center or sheltered workshop is located too far away; unwilling to participate);

- client characteristics (e.g., level of functioning; lack of ability, skills or adequate production rate; emotional, social, or behavior problems; age);

- clients are awaiting evaluation, referral or placement.

Table 5 presents the number of adult clients ready for work placements by regional and statewide totals.

Table 5
Adult Clients Ready for Work Placements by Region and Statewide Total[1]
(Minnesota DACs: 1981; 100% reporting)

Region	Work Activity Inside Agency Total	Work Activity Outside Agency Total	Sheltered Work Outside Agency Total
ONE	34	0	4
TWO	9	12	21
THREE	27	36	39
FOUR	7	29	34
FIVE	13	4	18
SIX	58	16	22
SEVEN	12	11	10
EIGHT	21	24	21
NINE	11	6	16
TEN	16	4	17
ELEVEN	41	63	38
STATEWIDE TOTAL	249	205	240

---

[1] The numbers presented here may be duplicated, i.e., individuals identified as being ready for work placement inside an agency may also have been reported as being ready for work placement outside of an agency. The numbers reported ready for sheltered work are accurate.

Waiting Lists

Five years ago, 24 of the 96 DACs (total N = 101) reported that they had waiting lists totaling 174 people (Community Programs Division, 1976). In 1978, DAC directors indicated that 144 persons were on waiting lists at 18 of the State's 104 centers (Mental Retardation Program Division, 1978).

Respondents to the 1981 survey reported that 449[1] persons were identified on waiting lists at 32 of Minnesota's 106 developmental achievement centers: 71 infants, 75 pre-schoolers, one school-age child and 302 adults. Two centers in the Saint Paul-Minneapolis area each reported having more than 100 people on their lists. DACs in Region Eleven account for over 85 percent of all people who are identified on waiting lists.

The reader is advised to use these numbers with caution. Every attempt has been made to eliminate duplicate names. In some cases adults on waiting lists may already be enrolled in a day program. They may be waiting to go into a work activity placement at another agency.

Table 6 presents current waiting lists by region and state, and by program.

IV. IMPLICATIONS

This paper presents an analysis of the general characteristics of the people currently enrolled in Minnesota's developmental achievement centers. The percentage of adult clients has increased since the enactment of state and federal legislation mandating public school programs for students with mental or physical handicaps. Coincidentally, the proportion of clients living in ICF-MR/group homes has risen. Client movement is an important statistic. Slow or little movement may indicate a lack of necessary resources--in employment, transportation, residential arrangements or other support services. The number of people waiting to participate in DAC programs and the number of current DAC clients awaiting work placement are significant indicators of movement potential. There are currently 450 clients ready to move into work activity or sheltered work situations. There are approximately 300 adults on DAC waiting lists for day program services and/or work activity placements. At the same time, statewide admission data indicate that DACs are admitting more people than they are demitting, transferring or "graduating."

Policy Analysis Series No. 9 will present more detailed information on the people enrolled in DAC programs. The paper will also summarize some of the results reported in Policy Analysis Series Numbers 6, 7 and 8, and will present some of the implications associated with the findings of this DAC study. Policy Analysis Series No. 9 will also summarize the changes which are likely to occur in DACs during the current year due to recent budget changes.

---

[1] 449 is an unduplicated count. The actual number reported by DACs was 483. Thirty-four people (30 adults, 4 pre-schoolers) were apparently identified on other lists or at other agencies. At least 40 people on waiting lists are enrolled in other DACs; they are in need of work activity program services

Table 6
Individuals Currently on Waiting Lists by Region and Statewide Total
(Minnesota DACs: 1981; 100% reporting)

	Program				
Region	Infant	Pre-school	School-age	Adult	Total
ONE	0	0	0	0	0
TWO	0	0	0	0	0
THREE	0	0	0	7	7
FOUR	0	0	0	6	6
FIVE	0	0	0	0	0
SIX	0	2	0	0	2
SEVEN	2	0	1	3	6
EIGHT	0	0	0	0	0
NINE	2	1	0	13	16
TEN	2	6	0	18	26
ELEVEN	65	70	0	285	420
STATEWIDE TOTAL	71	79	1	332	483[1]

[1] The unduplicated count is approximately 449 people statewide. Thirty-four (34) people were apparently identified on other lists or at other agencies--30 adults and four pre-school children. With the exception of two adults, all duplications were in Region Eleven.

At least 40 adults on waiting lists are enrolled at other DACs--they are awaiting placement in work activity programs.

V. REFERENCES

Bellamy, G., Horner, R. & Inman, D. Vocational habilitation of severely retarded adults: A direct service technology. Baltimore: University Park Press, 1979.

Bellamy, G., Sheehan, M., Horner, R., & Boles, S. Community programs for severely handicapped adults: An analysis. Journal of the Association for Severely Handicapped, 1980, 5 (4), 307-324.

Bergman, A. A guide to establishing an activity center for mentally retarded persons. Washington: U.S. Government Printing Office,1976.

Community Programs Division, Minnesota Department of Public Welfare. Final statistical data for FY '77. St. Paul: Author, 1977.

Community Programs Division, Minnesota Department of Public Welfare. Final statistical data for FY '78. St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. DAC status report for July 1, 1978 - June 30, 1979. St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. DAC status report for July 1, 1979 - June 30, 1980. St. Paul: Author, 1979.

Community Programs Division, Minnesota Department of Public Welfare. Unit costs for developmental achievement centers July 1 - December 31, 1979. St. Paul: Author, 1979.

Constantine, E. Internal DPW memorandum: 1978-1979 status report-developmental achievement center grant-in-aid. St. Paul: Department of Public Welfare, October 27, 1978.

Cortazzo, A. Activity centers for retarded adults. Washington, D.C.: President's Committee on Mental Retardation, 1972.

Demars, P. Training adult retardates for private enterprise. American Journal of Occupational Therapy. 1975, 29 (1), 24-25.

DHEW Report on Deinstitutionalization. Task Force on Deinstitutionalization of the Mentally Disabled. Decision memorandum. Washington, D.C.: Department of Health, Education and Welfare, Office of the Secretary, 1978.

Kaufman, B. Internal DPW memorandum: 1979-1980 status report-developmental achievement centers. St. Paul: Department of Public Welfare, November 27, 1979.

Mental Retardation Program Division, Minnesota Department of Public Welfare. A study of daytime activity centers in Minnesota. St. Paul: Author, 1976.

Mental Retardation Program Division, Minnesota Department of Public Welfare. An analysis of client and program characteristics in Minnesota developmental achievement centers. St. Paul: Author, 1978.

Mental Retardation Program Division, Minnesota Department of Public Welfare. Internal working paper: Results of adult DAC phone survey. St. Paul: Author, 1981.

Minnesota Developmental Achievement Center Association. DAC demographic data as of June 30, 1980. St. Paul: Author, 1980.

Research and Statistics Division, Office of Evaluation, Minnesota Department of Public Welfare. Persons enrolled in daytime activity centers, December 31, 1975, a special report. St. Paul: Author, 1976.

Salmon, D. Training and jobs for the mentally handicapped. Industrial Education, 1975, 24-25.

Social Services Division, Monitoring and Reporting Section, Minnesota Department of Public Welfare. Trends in social services: April - June, 1979. St. Paul: Author, 1979.

Wehman, P. Vocational training of the severely retarded: Expectations and potentials. Rehabilitation Literature, 1976, 37 (8), 233-236.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

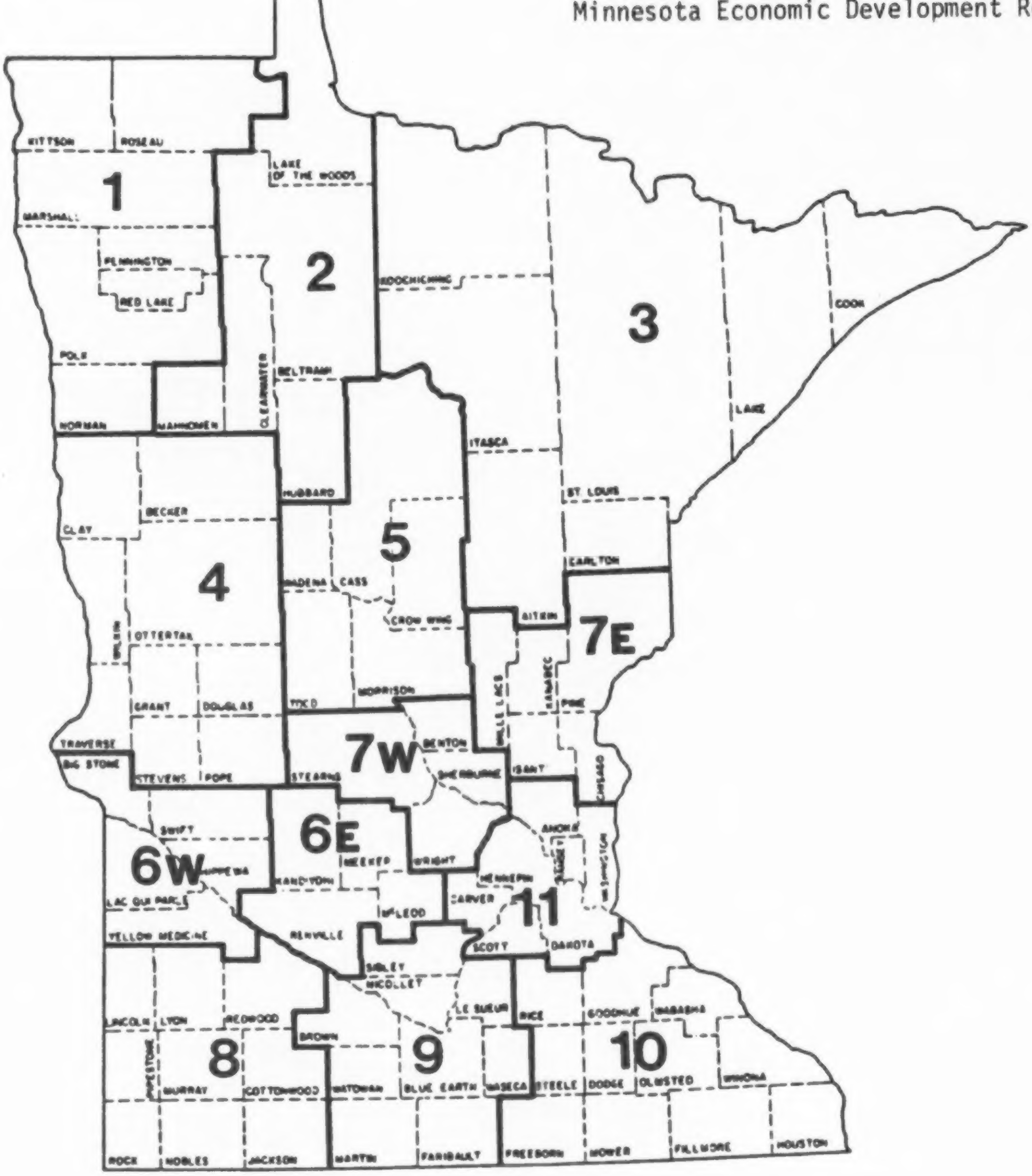
Richard Nelson, M.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #8: The Client Status of Minnesota Developmental Achievement Centers: 1980-1982. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, January, 1982.

APPENDIX

Minnesota Economic Development Regions


1
2
3
4
5
6E
6W
7E
7W
8
9
10
11
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
BELTRAMI
KOOCHICHING
COOK
LAKE
ITASCA
ST LOUIS
CARLTON
HUBBARD
BECKER
CLAY
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
CHIPPEWA
KANDIYOHI
MEEKER
WRIGHT
ANOKA
RAMSEY
WASHINGTON
HENNEPIN
LAC QUI PARLE
YELLOW MEDICINE
RENVILLE
McLEOD
CARVER
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
RICE
GOODHUE
WABASHA
LINCOLN
LYON
REDWOOD
BROWN
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 9

SUMMARY OF ISSUES, PROGRAMS AND CLIENTS IN MINNESOTA DEVELOPMENTAL ACHIEVEMENT CENTERS: 1980-1982

Contents

		Page
I.	Introduction	1
II.	Methodology	3
III.	Results (Individual Client Profile)	4
	Sex	5
	Age	5
	Level of Retardation	5
	Other Disabilities	5
	Years of Participation	5
	Place of Residence	8
	DAC Services	8
	Current Program Activities	14
	Earnings	14
IV.	Budgets and DAC Program Changes	14
V.	Summary and Implications	19
VI.	References	26
VII.	Appendix	28

I. INTRODUCTION

The issues creating the impetus for this statewide study of developmental achievement centers (DACs) are the same issues that generated similar reports for the past several years. These issues are cost, purpose, and characteristics about the agencies and clients served. Similar to previous studies, there is a pressing need for information since the combined federal, state and local cutbacks have an effect on community-based programs such as DACs. In addition, the Community Social Services Act (CSSA) went into effect on January 1, 1980, thus terminating the existing Department of Public Welfare data base developed for DACs. The potential use of Title XIX as one funding mechanism for DACs has created an intensified demand for information about clients, personnel and services. This policy analysis paper is the final issue in a series of four reports to present the results of a statewide study of all DACs in Minnesota. The first paper (Policy Analysis Series No. 6) focused on the financial status of DAC programs. The second report (Policy Analysis Series No. 7) presented information on program and personnel. The third report (Policy Analysis Series No. 8) profiled client characteristics and movement trends. This issue will present more detailed information on the adult DAC population and outline recent changes in DAC programs throughout the State. The report will also summarize some of the implications associated with the results of this survey.

A Department of Public Welfare report completed in 1978 provides historical information about DACs. Highlights from that report are presented as follows:

- Prior to 1961, few DACs existed in Minnesota (p. 22).
- In 1961, the Minnesota Legislature acted upon recommendations of the Interim Commission on the Problems of the Mentally Retarded, Handicapped and Gifted Children and funded a pilot project to develop nine DACs [Extra Sessions Law of Minnesota for 1961, Chapter 93.] (p. 22).
- In 1963, the Legislature appropriated funds for 14 additional centers under the Daytime Activity Center Act [Chapter 830 of the Session Law.] (p.23).
- Title IVA and Title XX provided federal support to the state with minimal financial commitment of counties (p. 23).
- The Trainable Mentally Retarded Act of 1971 made the State Department of Education responsible for all school age children, who could reasonably expect to benefit socially, emotionally, or physically from their service. DACs shift focus to serving only preschoolers and adults (p. 23).
- In 1975, the Minnesota Legislature provided a special appropriation to pay for 100 percent of approved costs for transportation of DAC clients to and from DACs (p. 23).
- In 1976, Assistant Commissioner Mike Weber requested a study of DACs including characteristics of the population, movement of clients, administrative standards and practices as well as unmet needs (p. 24).
- In 1976 an internal DPW working paper Policy Alternatives for Daytime Activity Centers highlighted major problems including the "absence of a clear goal for DACS as well as inadequate definitions of services, lack of information on clients being served, impact of services and measures of program effectiveness" (p. 3).
- In 1977, the DAC Evaluation Project was funded to develop an instrument to evaluate DACs (p. 24).
- In 1978, DPW completed a comprehensive study of 104 DACs serving 4,221 participants at a total cost of $15 million (p. 34).

A review of the literature on day program services revealed little information. National surveys of activity programs were undertaken in 1963, 1971, and 1979 (Cortazza, 1972; and Bellamy, Sheehan, Horner, & Boles, 1980). In 1963, there were 94 programs identified nationwide. By 1971, the number increased by 612 programs and tripled by 1979 to an estimated 1,989. The primary purpose of activity centers in 1971 was described by Cortazzo (1972) as:

> The severely mentally retarded have a potential and are entitled as human beings in our society to have their potential developed to capacity. It is the responsibility of society to develop and make maximum use of their potential (p.9).

The rapid deinstitutionalization during the 1970s as well as funding changes cited by Bellamy et al (1980) "drastically altered the scope, economics, and role of ADPs." The 1980 report continued:

> Today these programs represent a significant element of each state's adult service planning and have become critical in efforts to disperse residents of public institutions into community programs. Adaptive day programs frequently are viewed as providing the initial services for newly deinstitutionalized individuals [DHEW Report on Deinstitutionalization, 1978], and placement of individuals out of institutions frequently is contingent on availability of space in adaptive day programs (p. 309).

The summary of the Bellamy et al report was to call for greater coordination of policies and the development of practical service models that include greater opportunities for work and vocational outcomes (p. 321). Other literature on day programs includes technological applications for severely retarded adults (Bellamy, Horner, and Inman, 1979) guidebooks for establishing activity centers (Bergman, 1976), and specific training operations within centers (Salmon, 1975; Wehman, 1976; and DeMars, 1975).

The purpose of the current study of developmental achievement centers is to assess the financial, programmatic, and client status during 1980, 1981, and 1982. A three-year time period was selected because little information existed at a statewide level since January 1, 1980. The study was conducted as a joint effort of the Department of Public Welfare, the Minnesota Developmental Achievement Center Association, and the Minnesota Developmental Disabilities Program.

II. METHODOLOGY

The methodology for this study will be presented in abbreviated fashion. According to DPW, there were 108 DACs listed as licensed facilities. One facility is a satellite of the Glacial Ridge Training Center of Willmar State Hospital, one other facility receives no public money and refused to participate. None of the State Hospital DACs were included in the DPW list nor were they included in this study. Information about satellite DAC programs was collected from the respective central administrative offices. In order to get 100% participation, mail and telephone surveys were discarded in favor of onsite interviews. Interview studies typically yield a higher response rate, greater accuracy, and higher reliability than other methods. All 106 DACS participated in the study.

The general areas of investigation were outlined in a working document prepared by DPW and MNDACA. A joint meeting of representatives from DPW, DD, and MNDACA was held on September 1, 1981 to discuss the purpose, method, timeline, procedures, and questionnaire areas. Suggested questions were generated at that meeting. The Developmental Disabilities Program drafted the questionnaires with assistance from DPW staff. On September 11, 1981 the MNDACA Board of Directors gave its approval to the study. Revisions were made until September 15th, when a briefing was held with three interviewers from DPW and five interviewers from DD. On September 29, 1981, interview materials were distributed to all the surveyors. An interview packet contained:

1. an interviewer manual which outlined the purpose, selection of respondents, data privacy, question-by-question instructions, and sampling instructions;
2. cover sheet with identification information about the DAC;
3. administrator questionnaire;
4. financial questionnaire;
5. individual client forms;
6. eligible client roster form; and
7. respondent determination sheet.

Interviewers were responsible for setting up appointments with the assigned DACs. Interviews began on September 30, 1981, and ended in December 1981.

Editing and coding of the protocols occurred during November and December 1981 by staff of the Developmental Disabilities Program. Key to disc entry of the data was made by the Land Management Information Center of the Department of Energy, Planning and Development under contract with the Developmental Disabilities Program. The codebook (data file layout) and formats for the output were designed by the staff of the Developmental Disabilities Program. Copies of the questionnaires are available from the Developmental Disabilities Program by written request.

III. RESULTS

In addition to the administrative and financial questionnnaires, DAC directors were asked to complete an individual profile questionnaire for a twenty percent random sample of their adult clients. With the assistance of staff members and case records, a special set of questions was completed on 778 adult clients. The purpose of the questionnaire was to obtain more descriptive and detailed information on the personal characteristics and service needs of people enrolled in developmental achievement center programs. The results of this portion of the survey will be presented as follows: (a) sex, (b) age, (c) level of retardation, (d) other disabilities, (e) years of participation, (f) place of residence, (g) DAC services, (h) current program activities, and (i) earnings.

Sex. The responses to the questionnaire indicate that approximately 49 percent (N = 380) of the sample population are female; 51 percent (N = 398) are male clients. An earlier DPW study (Mental Retardation Program Division, 1978) reported similar proportions: approximately 50.3 percent (N = 1,521) of the adult DAC clients (age 22 and older) were male; 49.7 percent (N = 1,500) were female.

Age. The average age of the sample population (N = 777[1]) is 39 years. The youngest client in the sample is sixteen, the oldest is 84 years old. Age statistics for the people in this sample are presented in Table 1.

Level of Retardation. According to the responses on the individual profile questionnaire, 79 percent (N = 615) of the adult clients in the sample are moderately, severely, or profoundly mentally retarded. This finding compares to earlier reports by DAC directors (see Policy Analysis Series No. 8, page 6) which indicated that approximately 80 percent of the total adult DAC population are moderately to profoundly mentally retarded. Table 2 presents the level of retardation for the 778 people in the 20 percent random sample.

Other Disabilities. DAC directors were asked to report any disabilities clients have in addition to mental retardation. Sixty (60) people have cerebral palsy, 81 clients have other physical handicaps, 70 people have epilepsy, 16 have autism or are autistic-like, 59 are deaf, or have hearing impairments, 67 are blind or have visual impairments, 45 are classified as having mental illness. Eighty-four (84) of the 778 people in the sample population have other significant disabilities such as speech impairments, heart disease, arthritis, orthopedic problems, obesity, or emotional or behavior problems.

Table 3 presents non-MR disabilities by category and percent. There is some duplication among the figures; some clients are multiply handicapped.

DPW reported in 1978 (Mental Retardation Program Division) that up to five percent of the clients in 33 of the 104 centers were classified as being legally blind. Forty-nine (49) centers served deaf clients; up to five percent of the clients were deaf in 27 centers. Two centers reported in 1978 that 50 percent or more of their clients were unable to speak. Almost 83 percent of the 104 DACs reported in 1978 that their clients had no handicaps other than mental retardation or cerebral palsy. Because the 1978 DPW study gave only ranges, rather than specific numbers, exact comparisons are not easy to draw.

Years of Participation. DAC directors were asked to indicate the number of years the clients have participated in their center's program. The responses do not necessarily represent consecutive years of enrollment, nor do they necessarily represent the total number of years of DAC involvement. Clients could have, at one time, received day program services from other agencies.

---

[1] The age of one client was not reported.

Table 4 presents the years of client participation by region and statewide totals. The average length of participation was 4.9 years (N = 775[1]) for the adult clients in the sample. The range was from 24 years to less than six months.

DPW reported in 1976 (Office of Evaluation, 1976) that the average length of enrollment for all DAC clients was one year and eight months.

DPW records for December of 1978 indicate that approximately 32 percent of all clients had been receiving DAC services for less than one year. Approximately 39 percent had been enrolled in DAC programs from one to three years; 13 percent had been enrolled for four to five years; 13 percent had been enrolled for six to nine years; and three percent had been enrolled for ten years or more.

Table 1
Age of Clients by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 777)

Region	N	Average	Range	
			Minimum	Maximum
ONE	24	40.4	20	66
TWO	20	46.5	22	70
THREE	91	41.4	19	74
FOUR	55	37.7	20	63
FIVE	37	42.5	20	74
SIX	48	41.4	21	78
SEVEN	72	40.6	21	73
EIGHT	52	37.7	19	65
NINE	44	34.9	18	63
TEN	78	38.9	16	67
ELEVEN	256[2]	37.4	19	84
STATE	777	39.0	16	84

---

[1] The years of participation were not reported for three clients.

[2] The age of one client was not reported.

Table 2
Level of Client Functioning by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 778)

	Region											State	
Level of functioning	1	2	3	4	5	6	7	8	9	10	11	N	%
Not retarded	0	0	2	1	0	0	0	0	0	2	2	7	0.9
Borderline	1	0	4	3	6	0	1	2	1	3	4	25	3.2
Mild	3	4	13	11	11	8	4	11	5	8	34	112	14.4
Moderate	8	3	27	13	11	15	23	14	24	20	93	252	32.4
Severe	11	10	29	19	7	23	39	12	11	33	88	281	36.1
Profound	1	3	12	7	1	0	4	13	3	11	27	82	10.5
Unknown	0	0	4	1	1	2	1	0	0	1	9	19	2.5
Total	24	20	91	55	37	48	72	52	44	78	257	778	100.0

Table 3
Disabilities Other Than Mental Retardation
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 778)

Disability	N	Percent of total sample
Cerebral palsy	60	7.7
Other physical handicap	81	10.4
Epilepsy	70	9.0
Autism/autistic-like	16	2.1
Deaf/hearing impairment	59	7.6
Blind/vision impairment	67	8.6
Mental illness	45	5.8
Other	84	10.8

Place of Residence. Table 5 presents the type of client residence for the sample population during the past five years. The primary type of residence has been either the natural or adoptive home, or an ICF-MR/group home. The figures for the five years indicate a gradual trend toward ICF-MR/group home placement. In 1977, 39.1 percent (N = 304) of the sample population lived in their natural or adoptive home; 31.8 percent (N = 247) lived in an ICF-MR/group home. By 1981 over one-half (53.6 percent; N = 417) of the people in the sample group were living in ICF-MR/group home settings; 30.1 percent (N = 234) were living at home.

Table 5 indicates that at least 99 (12.7 percent) adult clients in the sample group had resided at a state hospital during the past five years.

At least 45 (5.8 percent) people included in the current sample group are now living in nursing homes. The average age of those 45 nursing home residents is 56 years. The oldest is 84; the youngest is 21 years old.

DAC Services. DAC directors were also asked to identify where the sample group of adult clients had been receiving day program services during the past five years. Table 6 presents that information by region and statewide totals. More than half (53.5 percent) had been enrolled in their current DAC program five years ago. State hospitals (12.3 percent) and public schools (11.7 percent) were the other major providers of day program services for these 778 people in 1977. More than ten percent were not receiving any day services during that same year.

Table 4
Years of Participation by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 775)

Region	N	Average	Range Minimum	Range Maximum
ONE	24	5.5	1	13
TWO	18[1]	5.2	1	13
THREE	90[2]	4.9	0[3]	15
FOUR	55	4.1	1	10
FIVE	37	4.3	0	9
SIX	48	4.8	0	14
SEVEN	72	4.6	0	11
EIGHT	52	5.4	0	14
NINE	44	6.0	0	16
TEN	78	4.8	0	24
ELEVEN	257	4.9	0	20
STATE	775	4.9	0	24

---

[1] The years of participation for two clients were not reported in Region Two.

[2] The years of participation for one client were not reported in Region Three.

[3] The zeroes denote less than six months participation in DAC programs.

Table 5
Client Residence by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1977, 1978, 1979, 1980, 1981; N=778)

	Region											State Total	
Residence by year	1	2	3	4	5	6	7	8	9	10	11	N	%
1977:													
Natural/Adoptive Home	10	7	37	25	20	16	27	22	28	36	76	304	39.1
Foster Care Home	0	3	4	9	3	3	9	0	0	1	12	44	5.7
ICF-MR/Group Home	6	6	21	6	2	20	17	18	8	18	125	247	31.8
Nursing Home	1	0	3	2	3	3	11	1	0	3	13	40	5.1
State Hospital	5	2	14	9	4	4	6	10	6	18	21	99	12.7
Indep. (Semi) living	0	0	7	0	0	2	0	0	0	0	1	10	1.3
Unknown	1	0	1	2	0	0	2	0	1	0	5	12	1.5
Other	1	2	4	2	5	0	0	1	1	2	4	22	2.8
	24	20	91	55	37	48	72	52	44	78	257	778	100.0
1978:													
Natural/Adoptive Home	9	7	37	23	16	18	26	21	26	32	72	287	36.9
Foster Care Home	0	3	3	8	4	2	8	0	0	1	12	41	5.3
ICF-MR/Group Home	8	6	22	8	7	19	22	20	11	25	137	285	36.6
Nursing Home	2	0	4	3	3	3	8	1	1	3	12	40	5.2
State Hospital	3	2	12	9	3	4	5	9	5	15	13	80	10.3
Indep. (Semi) living	0	0	7	0	0	2	1	0	0	0	2	12	1.5
Unknown	1	0	1	2	0	0	2	0	1	0	5	12	1.5
Other	1	2	5	2	4	0	0	1	0	2	4	21	2.7
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

Table 5 (Continued)

1979:

Natural/Adoptive Home	9	7	36	23	15	18	21	18	25	31	71	274	35.2
Foster Care Home	0	3	5	10	5	2	6	0	0	1	11	43	5.5
ICF-MR/Group Home	8	6	25	10	8	19	34	26	14	29	144	323	41.5
Nursing Home	3	0	5	3	3	3	7	0	1	3	11	39	5.0
State Hospital	3	2	9	5	2	4	2	8	3	13	10	61	7.9
Indep. (Semi) living	0	0	6	0	0	2	1	0	0	0	2	11	1.4
Unknown	0	0	0	2	0	0	1	0	0	0	5	8	1.0
Other	1	2	5	2	4	0	0	0	1	1	3	19	2.5
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

1980:

Natural/Adoptive Home	9	7	33	22	15	17	20	15	21	28	68	255	32.8
Foster Care Home	0	3	5	10	5	1	6	0	0	0	11	41	5.3
ICF-MR/Group Home	8	6	30	17	9	22	36	32	19	36	152	367	47.1
Nursing Home	3	0	5	3	3	3	7	0	2	4	12	42	5.4
State Hospital	3	2	6	2	1	3	1	5	1	7	8	39	5.0
Indep. (Semi) living	0	0	5	0	0	2	1	0	0	1	0	9	1.1
Unknown	0	0	0	0	0	0	1	0	0	0	1	2	0.3
Other	1	2	7	1	4	0	0	0	1	2	5	23	3.0
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

1981:

Natural/Adoptive Home	9	7	31	22	13	16	18	12	17	23	66	234	30.1
Foster Care Home	0	3	5	8	7	2	5	1	0	1	10	42	5.4
ICF-MR/Group Home	10	8	38	21	9	24	39	39	23	47	159	417	53.6
Nursing Home	3	0	5	3	4	4	7	0	2	4	13	45	5.8
State Hospital	0	0	0	0	0	0	1	0	0	0	3	4	0.5
Indep. (Semi) living	0	0	6	0	0	2	1	0	1	2	0	12	1.5
Unknown	0	0	0	0	0	0	1	0	0	0	0	1	0.1
Other	2	2	6	1	4	0	0	0	1	1	6	23	3.0
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

Table 6
Day Program Services by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1977, 1978, 1979, 1980, 1981; N= 778)

Services by year	Region 1	2	3	4	5	6	7	8	9	10	11	State Total N	%
1977:													
Services from current agency	14	12	50	24	23	25	37	31	25	33	142	416	53.5
Services from another DAC	0	0	2	2	1	3	3	2	2	1	21	37	4.8
State hospital-DAC services	6	2	14	7	4	5	6	8	6	18	20	96	12.3
Sheltered work/work activity	0	1	4	1	0	2	2	0	0	7	10	27	3.5
Competitive employment	0	0	2	0	0	1	0	1	0	0	2	6	0.8
Public School	2	2	10	6	4	1	10	7	6	8	35	91	11.7
Did not receive day services	2	2	9	5	5	8	13	2	5	11	17	79	10.1
other/unknown	0	1	0	10	0	3	1	1	0	0	10	26	3.3
	24	20	91	55	37	48	72	52	44	78	257	778	100.0
1978:													
Services from current agency	17	15	56	30	25	26	44	33	28	43	159	476	61.2
Services from another DAC	0	0	2	2	1	3	2	2	1	2	19	34	4.3
State hospital-DAC services	3	2	13	7	4	5	6	7	5	15	14	81	10.4
Sheltered work/work activity	0	1	4	2	1	3	2	0	0	4	11	28	3.6
Competitive employment	0	0	1	0	0	1	0	1	0	0	0	3	0.4
Public School	2	1	6	4	3	1	10	7	5	6	35	80	10.3
Did not receive day services	2	0	8	5	3	7	7	1	5	8	13	59	7.6
other/unknown	0	1	1	5	0	2	1	1	0	0	6	17	2.2
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

Table 6 (Continued)

1979:

Services from current agency	19	15	67	38	28	30	55	38	33	54	174	551	70.8
Services from another DAC	0	0	1	2	0	3	2	2	2	2	15	29	3.7
State hospital-DAC services	3	2	10	5	2	5	3	6	3	13	11	63	8.1
Sheltered work/work activity	0	1	2	1	1	2	3	0	0	1	9	20	2.6
Competitive employment	0	0	1	0	0	1	0	1	0	1	1	5	0.7
Public School	1	1	5	3	3	1	6	5	2	2	33	62	8.0
Did not receive day services	1	0	4	3	3	5	2	0	4	5	9	36	4.6
other/unknown	0	1	1	3	0	1	1	0	0	0	5	12	1.5
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

1980:

Services from current agency	19	17	76	50	32	33	61	40	36	63	202	629	80.8
Services from another DAC	0	1	0	0	1	3	2	1	2	2	11	23	3.0
State hospital-DAC services	3	2	6	2	1	4	2	5	1	7	8	41	5.3
Sheltered work/work activity	0	0	1	1	1	1	0	1	1	1	7	14	1.8
Competitive employment	0	0	0	0	0	1	0	0	0	0	0	1	0.1
Public School	1	0	4	1	0	1	5	5	2	1	20	40	5.1
Did not receive day services	1	0	4	0	2	4	1	0	2	4	6	24	3.1
other/unknown	0	0	0	1	0	1	1	0	0	0	3	6	0.8
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

1981:

Services from current agency	24	20	90	54	36	48	71	49	43	76	241	752	96.7 [1]
Services from another DAC	0	0	0	0	1	0	0	1	0	0	1	3	0.4
State hospital-DAC services	0	0	0	0	0	0	0	0	0	1	2	3	0.4
Sheltered work/work activity	0	0	0	1	0	0	0	1	1	1	4	8	1.0
Competitive employment	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Public School	0	0	0	0	0	0	1	1	0	0	7	9	1.2
Did not receive day services	0	0	0	0	0	0	0	0	0	0	1	1	0.1
other/unknown	0	0	1	0	0	0	0	0	0	0	1	2	0.2
	24	20	91	55	37	48	72	52	44	78	257	778	100.0

---

[1] The figures do not indicate 100 percent because some clients were enrolled for less than six months and received services elsewhere during most of 1981.

Current Program Activities. DACs were asked to report the percentage of time each client spent per week in various program activities. The responses to those questions are presented in Table 7.

The figures in Table 7 indicate that the largest proportion of time is spent in prevocational training and in developing work skills (27.6 percent). A high percentage of program time is spent in leisure/recreation activities (20.2 percent) and in academics (18 percent). Approximately 13 percent of an adult client's time is spent in community orientation activities and in developing independent living skills. Activities directed toward self-care and language skills development represent about 22 percent of an adult client's weekly program schedule. A client's program schedule depends upon many factors. Among these are: the client's individual skills, abilities and needs; staff; availability of resources (e.g., work contracts or therapist services); geographic location.

Earnings. Some DACs contract with sheltered workshops for work-oriented programs. Through these contracts, DAC clients who are able to participate can earn wages for their productive efforts.

DACs reported that 398 (51.2 percent) of the 778 adult clients in the sample group earned wages during calendar year 1980. The total wages earned by these clients was $61,666.50. Their earnings ranged from a low of $2.34 to a high of $2,010.00. The average yearly earnings for the 398 clients during 1980 was approximately $155. Earnings by region and statewide totals are presented in Table 8.

IV. BUDGETS AND DAC PROGRAM CHANGES

DACs, like most agencies, must operate within the constraints established by budget decisions. Many DACs have instituted program changes--some for budget-related reasons; a few because of declining enrollments; some because of expanding enrollments and increasing demands for services.

Program Changes. DAC directors were asked to identify changes which have occurred and program changes which they anticipate will occur during 1982 because of budgetary considerations. DACs reported changes by program (infant/pre-school and adult) and by category: units of service, program activities, support staff, paraprofessional/professional staff and support services. Respondents indicated whether the services and/or activities had been expanded, reduced or remained the same (because of budgetary considerations) for each of the three years. The number of DACs which indicated expansions or reductions in program areas is presented in Tables 9 and 10.

Table 7
Percent of Time Spent in Activities by Region and Statewide Total
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 777[1])

	Region											
	1	2	3	4	5	6	7	8	9	10	11	State
Activity	%	%	%	%	%	%	%	%	%	%	%	%
Work skills/prevocational/work activity	16.0	19.1	24.0	37.1	33.3	25.4	35.9	28.6	29.1	31.5	24.2	27.6
Self-care	11.8	13.8	12.2	7.2	8.6	13.0	8.1	8.9	13.9	9.3	11.8	10.8
Communication/language	15.1	8.7	12.1	8.6	11.0	13.2	6.3	8.4	10.5	8.9	12.7	10.8
Recreation/leisure	19.7	20.9	19.5	13.1	17.5	14.8	16.1	22.0	19.5	11.9	26.7	20.2
Education/academics	26.0	21.6	17.5	18.4	17.1	23.9	18.9	23.0	16.7	24.4	13.0	18.0
Independent living/community orientation	11.4	15.9	14.7	15.6	12.5	9.7	14.7	9.1	10.3	14.0	11.6	12.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] The percent of time spent in activities was not reported for one client in Region Three.

Table 8
Average Annual Earnings of Adult Clients During 1980
(Minnesota DAC Adult Clients, 20% random sample: 1981; N = 398)

Region	Average	Minimum	Maximum	N	Percent reported earning wages
ONE	$197.10	$82.51	$ 500.00	9	37.5%
TWO	171.00	5.00	240.00	5	25.0
THREE	177.28	10.78	2,010.00	48	52.7
FOUR	91.75	18.00	720.00	28	50.9
FIVE	110.33	6.72	325.00	26	70.3
SIX[1]	0.00	---	---	0	0.0
SEVEN	92.63	3.59	426.27	46	63.9
EIGHT	62.38	12.00	303.00	31	59.6
NINE	179.52	6.75	563.67	31	70.5
TEN	125.10	20.00	507.94	45	57.7
ELEVEN	175.98	2.34	1,358.59	129	50.2
STATE	154.94	2.34	2,010.00	398	51.2

---

[1] Some DACs in Region Six do have work activity programs which pay clients wages. However, for the sample of Region 6 adults no information was available on annual earnings.

Table 9
Program Changes Due to Budget Considerations by Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Infant/Pre-school Programs

	1980		1981		1982 (est.)	
Program/activity area	Reduce N	Expand N	Reduce N	Expand N	Reduce N	Expand N
Days of service: in-center	1	2	9	4	11	3
homebound	1	0	5	5	8	3
Hours of service: in-center	1	0	7	3	6	1
homebound	0	1	2	2	5	2
Sensorimotor activities	0	8	19	14	38	10
Academics	0	4	3	5	9	3
Self-care	0	1	4	4	8	3
Communication	1	5	6	11	9	5
Administrative staff	1	0	5	5	8	3
Maintenance staff	0	1	2	4	4	1
Food service staff	0	0	2	1	4	1
Transportation staff	0	1	4	4	13	2
Teaching staff: certified	1	2	7	6	7	4
non-certified	0	4	3	3	6	2
Teacher aides	0	3	11	5	9	8
Consultants	0	2	4	2	3	2
Therapists: Speech	1	3	8	5	6	3
Physical	1	3	6	6	8	5
Behavior	0	0	1	1	2	1
Other prof./paraprof. staff	1	1	3	0	0	0
Transportation service	1	3	7	2	15	3
Meal service	1	0	2	0	5	1
Other support services	0	1	1	1	3	0

Table 10
Program Changes Due to Budget Considerations by Statewide Total
(Minnesota DACs: 1980, 1981, 1982; 100% reporting)

Adult Programs

Program/activity area	1980 Reduce N	1980 Expand N	1981 Reduce N	1981 Expand N	1982 (est.) Reduce N	1982 (est.) Expand N
Days of service: in-center	2	2	7	5	21	4
homebound	0	0	1	1	5	1
Hours of service: in-center	0	0	3	3	6	1
homebound	0	0	0	0	3	2
Leisure/recreation	0	2	8	5	12	2
Academics	2	5	7	6	24	1
Self-care	2	4	5	9	19	6
Communication	3	6	16	12	27	4
Work skills	1	10	6	16	15	14
Independent living	2	6	10	8	23	6
Administrative staff	2	0	9	7	17	3
Maintenance staff	1	0	5	4	8	3
Food service staff	0	3	8	1	11	1
Transportation staff	3	4	13	6	18	5
Teaching staff: certified	0	8	8	5	12	6
non-certified	2	5	8	7	21	4
Teacher aides	0	9	14	12	25	12
Consultants	1	2	12	2	11	4
Therapists: Occupational	0	2	6	0	7	0
Speech	3	5	18	9	15	4
Physical	0	4	8	3	7	0
Behavior	0	2	3	6	5	2
Other prof./paraprof. staff	1	2	6	1	7	0
Transportation service	2	3	9	9	28	5
Meal service	0	3	11	0	22	1
Other support services	1	0	3	0	7	0

The 1976 DPW survey (Community Services Division, 1976) asked DACs to identify priorities if additional resources were made available. Work activity was given the highest priority rating by directors. Adult and infant programming were high priorities; programs for the elderly received a low rating.

The 1976 survey also asked DACs to identify which areas would be cut if resources were reduced. Respondents indicated that program hours or months of operation were most likely to be cut. Administrative functions, programs for the elderly, community education or recreation, and staff were also likely candidates for cuts according to the 1976 study. Work activity was least likely to be reduced.

DACs indicated in this survey that the program areas most often expanded (e.g., sensorimotor activities for infants/pre-schoolers, paraprofessional/professional staff, therapeutic services, communication, transportation services) were also the areas most likely to be reduced if their agency was forced to curtail services because of budget considerations. Admission and demission policy changes (see Policy Analysis Series, No. 7, pages 17 and 19) reported by DACs also indicate potential program reductions (e.g., services for the elderly, or programs for people with severe disabilities or behavior problems).

The programs and activities most often mentioned as possible areas of reduction during 1982 included: days of service, sensorimotor activities for infant and pre-school children, academics, communication, independent living skill activities for adults, teachers' aides, self-care activities, meal service, transportation and leisure/recreation activities.

V. SUMMARY AND IMPLICATIONS

The results of the DAC survey were reported in four parts: financial status (Policy Analysis Series No. 6, January 11, 1982), program status (Policy Analysis Series No. 7, January 18, 1982), client status (Policy Analysis Series No. 8, January 26, 1982) and individual profile/program changes (in this issue). The results of the DAC survey should be considered as a whole. This final section outlines some of the implications associated with these findings.

Revenue. The amount of revenue reported by DACs has increased steadily over the past several years. Under the Community Social Services Act (Minnesota Statutes 1980, Chapter 256E, sec. 8, subd. 9) county boards were required to maintain at least the same level of funding for developmental achievement centers during calendar years 1980 and 1981 as was provided during calendar year 1979. In fact, DAC revenue increased from 1980 to 1981 and is anticipated to increase again in 1982. The magnitude of those increases must be measured against several factors.

While DAC revenue increased approximately 13.5 percent from 1980 to 1981, the rate of inflation was 14.1 percent[1]. The revenue for DACs during 1982 is projected to increase approximately 5.3 percent on a statewide basis--considerably below the projected rate of inflation. In light of expanded enrollments, uncertain financial futures and increasing demands for services, this finding has both programmatic and fiscal implications.

Accounting for the use of revenue--particularly during times of diminishing resources--is both necessary and important. Prior to enactment of CSSA all DACs were required under DPW regulations to undergo an annual audit. DACs are now funded through county governments. Many counties do not require an annual audit of DAC programs within their jurisdictions. An annual audit by an independent, certified public accountant will help both county and agency administrators gain a better understanding of budgets and programs. An audit will help clarify ambiguities surrounding restricted accounts and donations; and will provide useful information while explaining proper methods for dealing with inventory, receivables, payables and depreciation. Additionally, an independent audit should aid administrators at the agency level in arriving at a better understanding of fiscal management and cash flow problems.

Expenses. Personnel costs in DACs account for approximately 63 percent of all agency expenditures. Those costs are somewhat lower than in comparable human services such as state hospitals or public school systems. Staff wage schedules will have an important influence in two areas: 1) attracting people with appropriate backrounds, experience or training to DAC programs, and 2) retaining staff in DAC positions. The backround and training of program staff have an obvious and direct impact upon DAC services. While turnover rates for program and administrative staff are lower than in some social services fields, they are significant in terms of program quality and continuity. DAC programs experienced a turnover rate of over 20 percent in 1981. Administrators indicated that salary and pay issues were among the major reasons for turnover in program and administrative staff.

Transportation is the second leading expense item for DAC programs. Those costs remained about the same (as a percentage of total expenditures) from 1980 to 1981. Although the actual cost of operating and maintaining motor vehicles is not likely to decrease, DACs project that they will devote less of their resources to transportation services during 1982. The anticipated decrease in transportation per diems for 1982 can be attributed primarily to cutbacks in services. DACs also reported finding economies of scale through alternative approaches. Cutbacks in DAC transportation services may shift some of the financial burden to other sources: clients, families, public agencies, community residential facilities. These cutbacks may foster cooperative efforts and more efficient use of existing resources; they may also constitute formidable obstacles to those people who need DAC services but do not live in close proximity to a developmental achievement center.

---

[1] The Federal Reserve Bank of Minneapolis and the U.S. Department of Commerce report that the rate of inflation for the Saint Paul-Minneapolis metropolitan area (measured by the Consumer Price Index during October of each year) was approximately 9.7 percent from 1979 to 1980; from October of 1980 to October of 1981 it was 14.1 percent. The Consumer Price Index is kept only for the Twin Cities metropolitan area. There are no regional or statewide figures.

Occupancy is the third leading expense for DAC programs. Unlike transportation, occupancy costs are anticipated to increase by almost 18 percent during 1982. Some of those costs, such as utilities, may be inevitable; other costs are more easily managed. Although at the statewide level the figures may not be entirely meaningful, the average yearly rent reported by DACs was almost $5,000 higher than the average loan payments on purchased buildings. The statewide average rent payment was also higher than the reported statewide average loan payment for new construction or remodeling. Occupancy issues are more meaningful at the regional or local level where accurate comparisons can be made. Both county and DAC boards should examine the long-term implications of building needs: acquisition versus rental. Other factors to be considered include location, size, accessibility, energy efficiency, stability of rental arrangements.

Program costs are the smallest expense item and are projected to decrease (as a percentage of total expenditures) during 1982. Given less resources to work with, personnel, transportation and occupancy take precedence over many program items.

Accessibility. In the next several years DACs will be expected to serve increasing numbers of people with physical or multiple handicapping conditions. As a result of this expected trend, buildings will have to be accessible (both on the exterior and the interior). DAC services are provided in 146 buildings throughout the State. Although the number of barrier-free buildings is up from the 46 reported in 1978, and many recent improvements have been made, there are important programmatic and fiscal ramifications to the survey findings. Most importantly, admissions of individuals with mobility impairments will be delayed until modifications are made in DAC buildings.

Some DACs which were not located in accessible buildings at the time of the survey indicated that they were ready to move into accessible buildings. Accessibility should remain a major concern for those DACs which are considering relocation, building purchases or new construction.

Personnel. The variation in full-time equivalents (FTEs) indicated in Tables 1 and 2 of Policy Analysis Series No. 7 (pages 5 and 8) should be examined closely. Some of the projected increases in administrative positions may reflect changes in agency definitions of FTE hours rather than actual increases in positions or people. Some centers reported reductions in yearly program hours. Since many administrators typically work more hours than the center is in actual operation, any reduction of service hours will increase the FTE figure for administrators compared to the baseline figure.

The FTEs associated with actual program services (e.g., teachers, instructors, aides and therapists) are more accurately portrayed in the tables. Program FTEs increased during 1981. They are anticipated to decrease back to about the 1980 level in 1982. Although the mix of professional and paraprofessional staff in program positions is projected to remain about the same (in terms of percentages at the statewide level) during 1982, the decrease in numbers has implications for day program services. DACs anticipate serving approximately 4,530 clients (average daily attendance) during 1982 with a program staff complement comparable to the 1980 level--which served an average daily attendance of 4,200 clients. Additionally, DACs are being asked to serve people who are more severely handicapped. These clients typically require a "richer" staff-to-client ratio.

Given the current fiscal circumstances and possible future budget difficulties, it will be important to watch for a substitution of non-certified personnel (aides) for teachers and instructors. The availability and use of therapist and consultant services is another area of concern given the anticipated increase in clients with special needs.

Program Changes. Several infant/pre-school programs were discontinued between 1980 and 1982 (projected). On a statewide basis the program hours, days per week and days per year did not show much variation. The statewide averages mask some changes, however. For instance, according to the reports of DACs the average number of program days per year for pre-school programs will increase from 180 days in 1980 to 193 in 1982. A major part of that increase can be attributed to the discontinuation of nine programs. Those programs probably averaged fewer days of operation; hence the increase in the state average. Days or hours of service for both infant/pre-school and adult programs are likely areas for cutbacks according to the responses of DAC directors (see Tables 9 and 10).

Out-of-County Clients. Out-of-county contracts are becoming a source of uncertainty for many DACs--both administratively and financially. In some instances program services and agency budgets must be planned around the budget decisions of several counties. Many DACs must accommodate a large number of out-of-county clients and maintain several purchase-of-service agreements. One out of every four clients currently enrolled in Minnesota's 106 DACs are the financial responsibility of a county other than the agency's own county.

DACs reported in the survey that there may be fewer out-of-county clients in their programs during 1982. If DACs (or host counties) begin to limit services to out-of-county clients there may be some significant impacts upon clients, their families or other service providers.[1]

---

[1] For example, Rule 34 facilities (ICF-MR) are licensed as Supervised Living Facilities by the Department of Health [MDH 391-401; Minnesota Statutes § 144.56 (1971)] to provide food, care and lodging on a 24-hour per day basis. Department of Public Welfare policy and rule [12 MCAR 2.034 (5 S.R. 429)] state, however, that "all developmental and remedial services. . . shall be rendered outside the facility, wherever possible. . ." Group homes/ICF-MR residences may not be adequately staffed to provide necessary day programming.

Admissions and Demissions. The target population of DACs has changed considerably since their inception in the early 1960s. Minnesota's DACs now serve a larger proportion of adults than in any previous year. The school-age population is served primarily by the public school system, although there are more than 130 students in DACs age four to 21 years.

It appears likely that infant and pre-school programs are more susceptible to budget fluctuations than are adult programs. The rationale may be that, eventually infants and pre-school children will become eligible for services in the public school system. The long-term ramifications of delayed entry and lack of early intervention services may, however, be significant. Although the human and social costs associated with cutbacks in children's services may be difficult to measure, they are not inconsequential.

DAC directors indicated other likely program changes as well. Admission and demission policy changes (see Policy Analysis Series No. 7, page 19) may in some instances exclude elderly people or individuals with multiple handicaps, more severe disabilities or behavior problems.

Level of Functioning. While the clientele of DACs is becoming more severely handicapped, there are 150 people in developmental achievement centers who are either borderline mentally retarded or are not retarded. These individuals may have cerebral palsy[1] or they may have mental illness or behavior problems which make placement in a DAC necessary.

Movement. Lack of resources--in employment, support services and residential options; financial--may restrict the movement of clients through the system.

Statistics from the DAC survey indicate that barriers to movement do exist: perhaps as many as 450 clients currently enrolled in DAC programs who are ready for work activity services cannot receive them; approximately 240 people are ready for placement in sheltered work stations; an additional 450 people are on lists waiting to participate in DAC programs; an analysis of admissions and demissions indicates a net movement into DAC programs during 1980, 1981 and 1982.

Developing opportunities for people who are ready to enter DAC programs as well as those who are ready to transfer out of DAC programs will not be easy--particularly under the current financial circumstances.

DAC Services in Minnesota. This DAC survey provides some basic and important information about the status of day programming in Minnesota. The data presented in these four reports indicate some problem areas, e.g., future staffing levels, support services, client movement, cutbacks in programs or services. Most of the issues highlighted by these reports are interrelated; many are related to budget considerations. Many of the problems are not new, however, and the larger issues are not tied exclusively to funding decisions.

---

[1] In addition to serving people with mental retardation, developmental achievement centers may be licensed under State statute and DPW rule to provide day programming to people with cerebral palsy.

Studies in 1976 (Community Services Division, 1976) and 1978 (Mental Retardation Program Division, 1978) identified problems in the system which slowed the movement of clients: limited resources, the unavailability of appropriate placements, inadequate support services, etc. Those same problems persist today.

With renewed planning and coordinated efforts (along with a refocusing of some financial resources) many of the bottlenecks in the service system could be mitigated.

For instance, policy-makers and agency administrators have known for some time that DACs would be expected to provide services to a more handicapped population. It was the policy of the State to deinstitutionalize certain social services long before it entered into the Welsch agreement in the fall of 1980. The 1978 DPW study (Mental Retardation Program Division) recognized the need for staff training in day program facilities and recommended that the "behavioral characteristics of the population to be released from state hospitals" be studied in order "to help prepare DACs programmatically [for those former state hospital residents]" (page 66). Many DACs indicate today that they are unable to provide adequate services for clients with special needs.

Recognizing that DAC services are an important part of a larger system of services the 1978 DPW report also recommended that the State develop a comprehensive plan which would contain "concise measurable goals and objectives detailing . . . the continuum of day services needed to optimally meet the needs of all participants who are mentally retarded and/or cerebral palsied. . ." (page 66). The Department of Public Welfare's Six Year Plan of Action (1981) outlines that continuum of services and identifies both the many actors and the roles they will have to play to fulfill the potential of the service system to move people with developmental disabilities into less restrictive environments. The interdependency between the many components of the system requires that the actors work in a concerted, coordinated fashion.

At the state level it will require the active participation and cooperation of several departments and agencies: Department of Public Welfare; Department of Economic Security, Division of Vocational Rehabilitation; Department of Energy, Planning and Development, Planning Division/Developmental Disabilities Program; State Department of Education, Special Education Division; and other councils, task forces and private advocacy organizations. It will also require the active and continued participation of the Governor and the Legislature.

County responsibilities to people with developmental disabilities are defined under various State statutes and DPW Rule 185 (12 MCAR 2.185). Perhaps the most notable component of the service delivery system described in Rule 185 is case management services.

Case management is by definition a coordinative function. Its most compelling characteristic is that it seeks to mobilize resources at the local level for specific purposes, for specific individuals. As a service designed to coordinate functions and move people through the continuum of services, case management holds great potential for its ability to monitor and detect bottlenecks within the system. Properly staffed case management services at the county level may help alleviate some of the bottlenecks now evident within the system. Solutions defined at the client level may be more innovative as well as more appropriate.

The DAC survey did not assess the qualitative nature of DAC services. For many people a DAC is one of the first steps in a long progression of social and educative encounters. It is important that those initial experiences be meaningful. Inabilities to deal with special needs (e.g., behavior problems) can be overcome at relatively little cost and effort. Pertinent literature and effective training materials are available from several sources.

Cutbacks or bottlenecks in the provision of services anywhere along the continuum will eventually have an impact at the DAC level. Because DACs are a major point of entry for clients, they oftentimes experience pressure from two sides: demand for services (waiting lists) and inability to move clients (people waiting for work activity/sheltered work).

The DAC information presented in this study gives some indication that problems exist elsewhere within the service system. For this reason the problems now being experienced within DACs (fiscal or otherwise) will not be solved easily or quickly. They will require thoughtful responses and coordinated efforts by a number of policy-makers and administrators at all levels--state, county and local.

VI. REFERENCES

Bellamy, G., Horner, R. & Inman, D. Vocational habilitation of severely retarded adults: A direct service technology. Baltimore: University Park Press, 1979.

Bellamy, G., Sheehan, M., Horner, R., & Boles, S. Community programs for severely handicapped adults: An analysis. Journal of the Association for Severely Handicapped, 1980, 5 (4), 307-324.

Bergman, A. A guide to establishing an activity center for mentally retarded persons. Washington: U.S. Government Printing Office,1978.

Community Programs Division, Minnesota Department of Public Welfare. Final statistical data for FY '77. St. Paul: Author, 1977.

Community Programs Division, Minnesota Department of Public Welfare. Final statistical data for FY '78. St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. DAC status report for July 1, 1978 - June 30, 1979. St. Paul: Author, 1978.

Community Programs Division, Minnesota Department of Public Welfare. DAC status report for July 1, 1979 - June 30, 1980. St. Paul: Author, 1979.

Community Programs Division, Minnesota Department of Public Welfare. Unit costs for developmental achievement centers July 1 - December 31, 1979. St. Paul: Author, 1979.

Constantine, E. Internal DPW memorandum: 1978-1979 status report-developmental achievement center grant-in-aid. St. Paul: Department of Public Welfare, October 27, 1978.

Cortazzo, A. Activity centers for retarded adults. Washington, D.C.: President's Committee on Mental Retardation, 1972.

Demars, P. Training adult retardates for private enterprise. American Journal of Occupational Therapy. 1975, 29 (1), 24-25.

DHEW Report on Deinstitutionalization. Task Force on Deinstitutionalization of the Mentally Disabled. Decision memorandum. Washington, D.C.: Department of Health, Education and Welfare, Office of the Secretary, 1978.

Kaufman, B. Internal DPW memorandum: 1979-1980 status report-developmental achievement centers. St. Paul: Department of Public Welfare, November 27, 1979.

Mental Retardation Program Division, Minnesota Department of Public Welfare. A study of daytime activity centers in Minnesota. St. Paul: Author, 1976.

Mental Retardation Program Division, Minnesota Department of Public Welfare. An analysis of client and program characteristics in Minnesota developmental achievement centers. St. Paul: Author, 1978.

Mental Retardation Program Division, Department of Public Welfare. Minnesota Department of Public Welfare six year plan of action, 1981-1987 and biennial budget request 1982-1983 for mental retardation services. Saint Paul: Author, January, 1981.

Mental Retardation Program Division, Minnesota Department of Public Welfare. Internal working paper: Results of adult DAC phone survey. St. Paul: Author, 1981.

Minnesota Developmental Achievement Center Association. DAC demographic data as of June 30, 1980. St. Paul: Author, 1980.

Research and Statistics Division, Office of Evaluation, Minnesota Department of Public Welfare. Persons enrolled in daytime activity centers, December 31, 1975, a special report. St. Paul: Author, 1976.

Salmon, D. Training and jobs for the mentally handicapped. Industrial Education, 1975, 24-25.

Social Services Division, Monitoring and Reporting Section, Minnesota Department of Public Welfare. Trends in social services: April - June, 1979. St. Paul: Author, 1979.

Wehman, P. Vocational training of the severely retarded: Expectations and potentials. Rehabilitation Literature, 1976, 37 (8), 233-236.

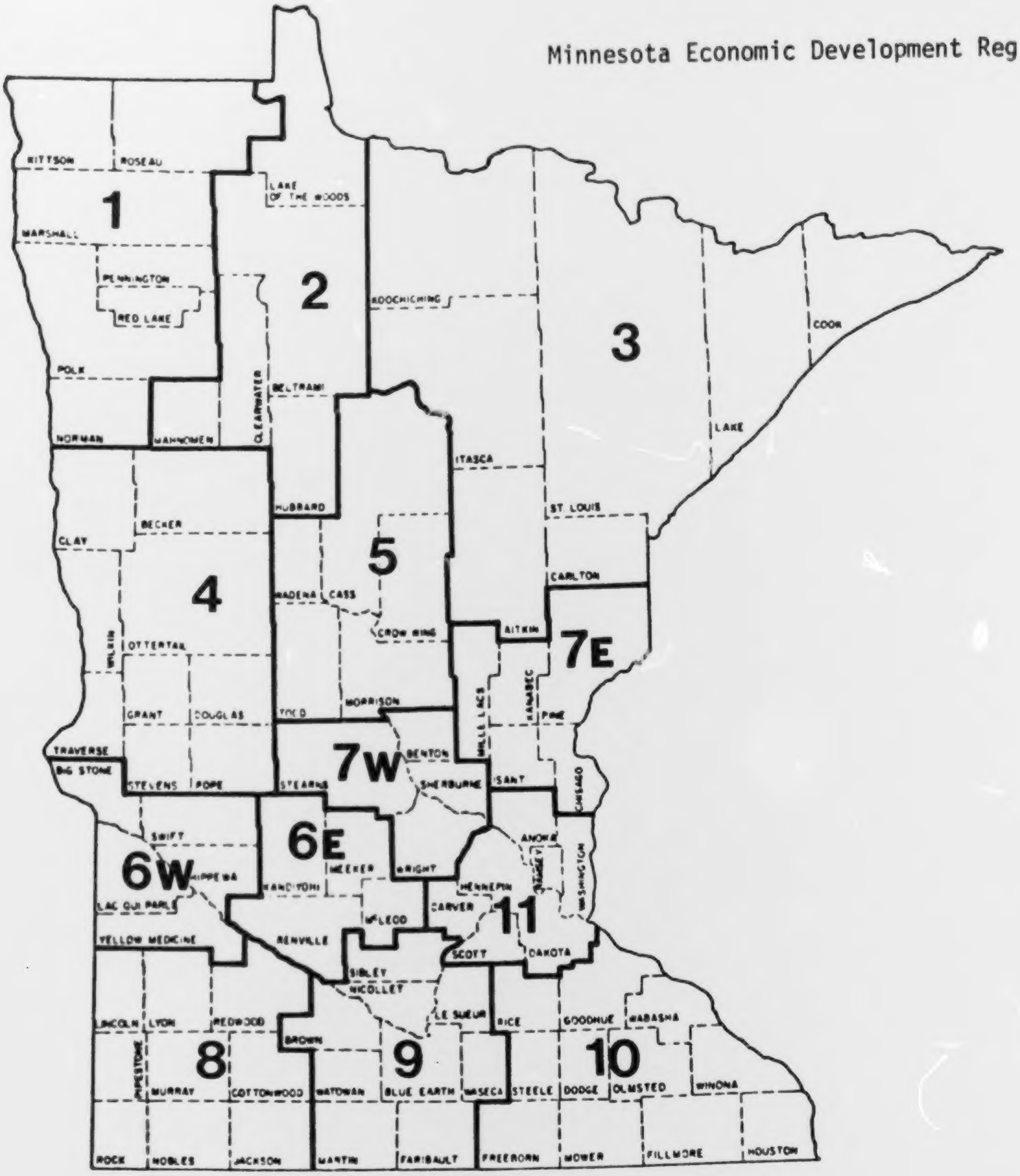
The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #9: Summary of Issues, Programs and Clients in Minnesota Developmental Achievement Centers: 1980-1982. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, February, 1982.

APPENDIX



Minnesota Economic Development Regions

KITTSON
ROSEAU
LAKE OF THE WOODS
1
MARSHALL
PENNINGTON
RED LAKE
2
KOOCHICHING
COOK
3
POLK
BELTRAMI
CLEARWATER
NORMAN
MAHNOMEN
LAKE
ITASCA
HUBBARD
ST LOUIS
CLAY
BECKER
5
4
WADENA
CASS
CARLTON
CROW WING
AITKIN
WILKIN
OTTERTAIL
7E
KANABEC
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
PINE
TRAVERSE
BIG STONE
BENTON
7W
STEVENS
POPE
STEARNS
SHERBURNE
ISANTI
CHISAGO
SWIFT
6E
ANOKA
6W
CHIPPEWA
MEEKER
WRIGHT
RAMSEY
WASHINGTON
KANDIYOHI
HENNEPIN
LAC QUI PARLE
CARVER
11
McLEOD
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
LINCOLN
LYON
REDWOOD
RICE
GOODHUE
WABASHA
BROWN
PIPESTONE
8
9
10
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 10

AN UPDATE TO POLICY ANALYSIS SERIES NO. 5

ADMISSIONS/READMISSIONS TO STATE HOSPITALS
JUNE 1, 1981 TO DECEMBER 31, 1981:
THE BEHAVIOR PROBLEM ISSUE

I. INTRODUCTION

Under the provisions of the Welsch v. Noot Consent Decree (1980), the State is required to reduce the number of mentally retarded persons residing in state hospitals to no more than 1,850 by mid-1987. The reduction in population is to take place according to a prescribed schedule. By the terms of the decree there were to be no more than 2,600 people with mental retardation residing in state institutions by July 1, 1981. The State has met that population reduction goal.

According to a census count in June 1981, there were 2,541 people with mental retardation residing in state hospitals (Mental Retardation Program Division, 1982). Although the Department of Public Welfare reports that the rate of discharges is currently slowing, DPW anticipates that the next stipulated reduction level (no more than 2,375 people by July 1, 1983) will be met.

There are now seven state hospitals serving people with mental retardation. During a special session of the 1981 Legislature a bill was passed which called for the closing of the state hospital at Rochester by June 30, 1982. All residents of the Rochester Social Adaptation Center were transferred or placed in alternative community placements, and the center was closed before January, 1982.

The purpose of this paper is to update an earlier report on behavior problems and state hospital admissions (Developmental Disabilities Program, 1981). That report contained a brief review of the literature related to behavior problems and movement trends; a summary analysis of admission/readmission reports from the state hospitals covering the nine-month period from September, 1980 to May, 1981; and an outline of the implications for state policy and planning related to the development of community residential services. The report concluded by summarizing a variety of programmatic and philosophical approaches to behavior management and the reduction of institutional admissions (Leismer, 1981).

II. METHODOLOGY

Like the earlier study, this analysis is based upon a review of state hospital admission/readmission reports. Inasmuch as admission reports from the individual hospitals vary in content, quality and format, this is a summary analysis of admissions and readmissions and the circumstances leading to placement in an institution.

This analysis included all admission reports on file for the period June 1, 1981 to December 31, 1981. State hospitals reported 221 total admissions/readmissions during this seven-month period. Ninety-two (92) of those admissions were transfers from the Rochester Social Adaptation Center. The closure of the state hospital at Rochester also resulted in a number of other inter-hospital transfers when catchment areas were realigned[1] and the department's policy of regionalized placement was reviewed. In total, there were 119 transfers during the last half of 1981. Since these transfers represent movement within the state hospital system rather than movement into institutions these admissions have been excluded from this analysis. The primary emphasis of this report is admissions/readmissions from community settings.

III. RESULTS

During the seven-month period from June 1, 1981 to December 31, 1981 there were 102 (non-transfer) admissions/readmissions to Minnesota's seven state hospitals.[2] Moose Lake State Hospital reported the fewest admissions (N=4); Cambridge reported the largest number of admissions (N=31). Table 1 summarizes state hospital admissions by facility, type of admission and place of prior residence.

Personal Characteristics

Very little psychometric data were indicated in the 102 reports. State hospital social work representatives (MR Admissions Evaluation, 1981) estimated that 63 percent of all people admitted during calendar year 1980 were severely/profoundly mentally retarded; 23 percent moderately retarded; and 14 percent mild/borderline.

Sixty-one percent (N=62) of the 102 people admitted to state hospitals during the seven-month period were male; 39 percent (N=39) were female.

Eighty-three of the 102 reports indicated the age of the individual. The average age of those 83 people was 25.7 years. The oldest person was 70 years; the youngest was four years. Excluding respite care/parental relief admissions, the average age was 33.2 years (N=46). Thirty-seven reports indicated the age of people who were admitted for respite care. The average age of those 37 people was 16.3 years. The oldest was 50 years; the youngest was five years.

---

[1] See the appendix for a map of the state hospital catchment areas.

[2] This analysis does not include the Minnesota Learning Center at Brainerd.

Table 1
Admissions to State Hospitals by Facility, Type and Prior Residence
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

	Brainerd	Cambridge	Faribault	Fergus Falls	Moose Lake	St. Peter	Willmar	Total	
Admission status								N	%
Informal (non-respite)	0	6	4	3	1	1	0	15	14.7
Informal (respite)	5	20	4	3	0	3	16	51	50.0
Committed	6	3	3	1	2	3	1	19	18.6
Hold	1	1	1	3	0	0	4	10	9.8
Unspecified	0	1	5	0	1	0	0	7	6.9
Total	12	31	17	10	4	7	21	102	100.0
Type of admission								N	%
Readmission	7	19	12	0	3	1	7	49	48.0
New/unspecified	5	12	5	10	1	6	14	53	52.0
Total	12	31	17	10	4	7	21	102	100.0
Admitted from								N	%
Natural/adoptive home	6	20	1	3	0	3	12	45	44.1
Foster care home	0	0	1	1	0	1	1	4	3.9
ICF-MR	6	7	10	1	3	2	5	34	33.3
Nursing home	0	1	1	1	0	0	0	3	2.9
Public institution	0	0	1	0	0	0	0	1	1.0
Other	0	2	2	2	1	0	0	7	6.9
Unspecified	0	1	1	2	0	1	3	8	7.9
Total	12	31	17	10	4	7	21	102	100.0

		N	Percent
Sex:	Female	39	38.6
	Male	62	61.4
	Total	101	100.0

		N	Average	Range
Age:	Non-respite admissions	46	33.2 yrs	4 yrs to 70 yrs
	Respite admissions	37	16.3 yrs	5 yrs to 50 yrs
	Total	83	25.7 yrs	4 yrs to 70 yrs

Type of Admissions

As indicated in Table 1, approximately 65 percent (N=66) of all "non-transfer" admissions were informal admissions. A large proportion of those were classified as respite care/parental relief (77.3 percent; N=51). Nineteen (19) people were committed to state hospitals through court action and ten were admitted on physician's, emergency or peace officer's hold orders. Seven reports did not specify the type of admission.

Readmissions

Table 1 summarizes readmission data for the seven-month period. Not all reports indicated whether a person had resided in a state hospital prior to the current admission or if it was a first-time admission. Out of the 102 admissions, 49 (48 percent) were identified as being readmissions, i.e., at least 49 of the total 102 admissions were readmissions. It is likely that a number of the unspecified cases were actually readmissions.

Data on readmissions should have special significance for policy-makers and community-based service providers. In one sense it is a measure of both the effectiveness of existing community residential alternatives and deinstitutionalization efforts generally. To get a better idea of the extent of readmissions it is helpful to differentiate between short-term readmissions such as respite care and those readmissions which are associated with indefinite and/or potentially longer-term placements. Table 2 indicates that nearly 60 percent (N=29) of the 49 identified readmissions were for respite care/parental relief purposes.

Table 3 presents readmission figures by place of residence. Twenty-five of the 49 readmissions came from natural or adoptive homes. Ninety-two percent (N=23) of the readmissions from natural homes were for respite care purposes. Thirty-seven percent (N=18) of the 49 identified readmissions came from ICF-MR placements. Admission reports indicated behavior problems in 15 (83 percent) of the 18 readmissions coming from ICF-MRs.

Table 2
Readmissions to State Hospitals: Respite Care
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

Type of admission	Total admissions N	Total admissions %	Readmissions N	Readmissions %
Respite care	51	50.0	29	59.2
Non-respite care	51	50.0	20	40.8
Total	102	100.0	49	100.0

Place of Residence

Tables 1 and 3 indicate that over 75 percent of the people admitted to the state hospitals during the seven-month period came from two settings: natural/adoptive homes and ICF-MRs. Foster care homes accounted for four percent (N=4) of the admissions. Three people were admitted from nursing homes. Seven of the 102 people came from "other" settings, which included independent or semi-independent living arrangements, congregate living facilities other than ICF-MRs, and intra-hospital (inter-program) transfers.

Table 3
Readmissions to State Hospitals: Place of Residence
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

Place of residence	Total admissions N	Total admissions %	Readmissions N	Readmissions %
Natural/adoptive home	45	44.1	25	51.0
Foster care home	4	3.9	2	4.1
ICF-MR	34	33.3	18	36.7
Nursing home	3	2.9	0	0.0
Public institution	1	1.0	1	2.0
Other	7	6.9	2	4.1
Unspecified	8	7.9	1	2.0
Total	102	100.0	49	100.0

Table 4 presents respite care admissions by place of residence. Thirty-seven (82 percent) of the 45 admissions from natural homes were classified as respite care/parental relief. Three of the four admissions from foster care homes were similarly classified.

Table 4
Respite Care Admissions to State Hospitals: Place of Residence
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

Place of residence	N	Respite care	Percent of N
Natural/adoptive home	45	37	82.2
Foster care home	4	3	75.0
ICF-MR	34	6	17.6
Nursing home	3	0	0.0
Public institution	1	1	100.0
Other	7	2	28.6
Unspecified	8	2	25.0
Total	102	51	50.0

Behavior Problems

Table 5 presents a summary analysis of admissions related to behavior problems. An admission was classified as "behavior-related" if maladaptive behavior or behavior problems were cited within the report. Although admission reports varied greatly in content and quality, at least an indirect relationship between behavior and state hospital placement could be inferred when behavior was mentioned.

Forty-seven (46 percent) of the 102 reports indicated that the admission/readmission was related to behavior problems. Forty-eight reports stated that admissions were sought for reasons other than behavior, or were for respite care purposes. Seven reports did not specify any reason for admission. Twenty-nine (85 percent) of the 34 admissions from ICF-MR settings were behavior-related.

Behavior problems cited within the reports were similar to those reported in the earlier admission/readmission analysis (Policy Analysis Series No. 5, August 1981; pages 10-13).

Table 6 is a summary analysis of readmissions and behavior problems. Forty-three percent (N=21) of the 49 people who were identified as having resided at the hospital before were admitted for behavior problems. Twenty-seven (55 percent) of the 49 reports cited other reasons or respite care as the reason for an admission. One readmission report did not specify any reason.

Table 5
Admissions to State Hospitals: Behavior Problems
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

Place of residence	N	Behavior-related	Percent of N
Natural/adoptive home	45	9	20.0
Foster care home	4	1	25.0
ICF-MR	34	29	85.3
Nursing home	3	3	100.0
Public institution	1	0	0.0
Other	7	4	57.1
Unspecified	8	1	12.5
Total	102	47	46.7

Table 6
Readmissions to State Hospitals: Behavior Problems
June 1, 1981 to December 31, 1981
(total non-transfer admissions = 102)

Readmissions	N	%
Behavior-related	21	42.9
Not behavior-related	27	55.1
Unspecified	1	2.0
Total	49	100.0

Admissions from ICF-MRs

Admissions/readmissions from ICF-MR settings are of interest for two reasons: 1) Rule 34 facilities represent an important component of the community-based service system; and 2) Rule 34 facilities are licensed and paid to provide active treatment to residents on a 24-hour basis.[1]

In December, 1979 there were approximately 185 ICF-MRs serving just under 3,500 residents. There are now approximately 290 facilities serving some 4,700 residents. The importance of these facilities in providing appropriate community residential alternatives and in furthering the state's deinstitutionalization efforts is obvious. The capacities of these facilities to manage and/or reduce the incidence of behavior problems--a major reason for institutional placements--is an important and timely policy issue.

---

[1] 12 MCAR 2.034 (5 S.R. 429/5 S.R. 1888); also MHD 391-401 [Minn. Stat § 14.56 (1971)].

Table 7 presents information on the size of the facilities in which the 34 people had been residing prior to admission. In three cases it was not possible to determine any characteristics of the facility. Although size is only one of many factors associated with normalized, community-based residential services and is not necessarily indicative of a non-institutionalized living environment, the literature suggests that attributes most influential in producing gains in adaptive behavior and general developmental growth are more likely to prevail in smaller facilities.[1] About one-half (N=15) of the admissions from ICF-MRs came from facilities which were licensed to serve 16 or fewer people. The average licensed capacity of the 31 facilities was 46 residents. The smallest facilities were licensed to serve six people; the largest 171.

Table 7
Admissions from ICF-MRs: Size Characteristics
June 1, 1981 to December 31, 1981
(total ICF-MR admissions = 34)

Licensed capacity	N	%	Range
1 to 6 residents	4	12.9	---
7 to 16 residents	11	35.5	7 - 16
17 to 32 residents	3	9.7	24 - 30
33 + residents	13	41.9	33 - 171
Total	31	100.0	6 - 171

Table 8 presents behavior-related readmissions from ICF-MRs. Eighteen of the 34 ICF-MR admissions were identifed as readmissions; 15 (83 percent) of those were admitted for reasons related to behavior.

---

[1] See Policy Analysis Series No. 2, April 1981; pages 7-9. See also Leismer (1981) quoted in Policy Analysis Series No. 5, August 1981; pages 15-19.

Table 8
Readmissions from ICF-MRs: Behavior Problems
June 1, 1981 to December 31, 1981
(total ICF-MR admissions = 34)

Readmissions	N	%
Behavior-related	15	83.3
Not behavior-related	2	11.1
Unspecified	1	5.6
Total	18	100.0

IV. SUMMARY

The following tables summarize the total admissions/readmissions during the sixteen-month period from September 1, 1980 to December 31, 1981. The data from the earlier admission report (Policy Analysis Series No. 5, August 1981) is combined with the information reported in this paper to present an overview of state hospital admissions during that year and a half.

From September, 1980 to December, 1981 there were 341 total admissions/readmissions to state hospitals. One hundred-nineteen (119) of those admissions were inter-hospital transfers which resulted from the closing of the state hospital at Rochester. The primary focus of this paper is admissions from community settings. Since these 119 "admissions" represent movement within the system rather than movement into the system, they have been excluded from the analysis. The total number of "non-transfer" admissions/readmissions during the sixteen-month period was 222.[1]

Table 9 summarizes admissions/readmissions by state hospital, type of admission and place of residence. Cambridge reported the largest number of admissions during the sixteen-month period (N=65); among the state hospitals currently operating, Moose Lake reported the fewest admissions (N=9).

Personal Characteristics

Personal characteristics for the 34 people admitted to Cambridge during the first nine months were not available. Of the remaining 188 people admitted to state hospitals, 66 percent were male (N=123); 34 percent (N=64) were female.

Admission reports identified the age of 143 people. The average age of these 143 individuals was 25.9 years. The youngest person admitted during the sixteen-month period was two years; the oldest was 70 years.

---

[1] This number actually includes four transfers which took place within the first nine months of this report period. Since it is not possible to go back and subtract these four "admissions" from the earlier analysis, they have been included in this summary.

Table 9
Admissions to State Hospitals by Faciltiy, Type and Prior Residence
September 1, 1980 to December 31, 1981
(total non-transfer admissions = 222)

Admission status	Brainerd	Cambridge	Faribault	Fergus Falls	Moose Lake	Rochester	St. Peter	Willmar	Total N	Total %
Informal (non-respite)	2	11	15	9	4	1	4	3	49	22.1
Informal (respite)	14	39	9	11	0	1	6	22	102	45.9
Committed	11	8	4	1	2	0	3	1	30	13.5
Hold	7	1	2	3	1	0	2	6	22	9.9
Unspecified/other[1]	1	6	8	1	2	0	0	1	19	8.6
Total	35	65	38	25	9	2	15	33	222	100.0
Type of admission									N	%
Readmission	15	37	26	3	4	0	2	8	95	42.8
New/unspecified	20	28	12	22	5	2	13	25	127	57.2
Total	35	65	38	25	9	2	15	33	222	100.0
Admitted from									N	%
Natural/adoptive home	14	30	4	11	0	0	4	8	81	36.5
Foster care home	1	6	3	1	1	0	2	1	15	6.8
ICF-MR	16	16	20	6	6	2	6	9	81	36.5
Nursing home	0	1	1	1	1	0	0	1	5	2.2
Public institution	0	5	4	2	0	0	1	1	13	5.8
Other	1	6	5	2	1	0	0	0	15	6.8
Unspecified	3	1	1	2	0	0	2	3	12	5.4
Total	35	65	38	25	9	2	15	33	222	100.0

---

[1] Includes 8 admissions from the earlier report which were classified as "return from provisional discharge" and 4 admissions which were classified as transfers.

		N	Percent
Sex:	Female	64	34.2
	Male	123	65.8
	Total	187	100.0

	N	Average	Range
Age:	143	25.9 yrs	2 yrs to 70 yrs

Type of Admissions

Over two-thirds (N=151; 68 percent) of all non-transfer admissions were informal admissions. More than two-thirds (N=102; 67.5 percent) of those 151 admissions were for respite care/parental relief; and nearly 46 percent (N=102) of all admissions were classified as respite care.

Readmissions

Ninety-five (43 percent) of the 222 admissions were identified as readmissions, i.e., the individuals were identified as having resided at the hospital at least once before. The actual number of readmissions are probably higher than this analysis indicates. The reports did not always indicate whether an admission was a first-time admission or a readmission. Several reports stated that individuals had been admitted to other state hospitals--these were not counted as readmissions in this analysis.

Table 2 suggests that a high percentage of readmissions are classified as respite care/parental relief admissions.

Place of Residence

Table 9 figures show that most people admitted to state hospitals came from family homes (N=81; 36.5 percent) and ICF-MR settings (N=81; 36.5 percent). Admission reports summarized in this paper (N=102) indicate that approximately eight out of ten admissions from family homes were for respite care/parental relief purposes. Smaller proportions came from foster care homes (6.8 percent), nursing homes (2.2 percent) and other public institutions such as the Braille and Sight Saving School at Faribault (5.8 percent). Fifteen people (6.8 percent) came from "other" residences such as independent or semi-independent living arrangements, non-ICF-MR congregate living facilities, or community hospitals.

Behavior Problems

Table 10 reports admissions related to behavior problems. The figures do not include the 34 admissions to Cambridge State Hospital during the first nine months of the sixteen-month report period--no descriptive data on those individual admissions were available. Over half (54.3 percent; N=102) of the remaining admission reports (N=188) identified behavior problems. Forty-one percent (N=77) indicated reasons other than behavior, e.g., respite care; five percent did not specify any reason for admission.

Table 10
Admissions to State Hospitals: Behavior Problems
September 1, 1980 to December 31, 1981
(total non-transfer admissions = 222)

Admissions	N	%
Behavior-related	102	54.3
Not behavior-related	77	40.9
Unspecified	9	4.8
Total	188	100.0

Table 11 presents data on behavior problems and readmissions. Again, since descriptive data on admissions to Cambridge from September, 1980 to May, 1981 were not available, the 18 readmissions during that time period have been excluded from the analysis. Fifty-two percent (N=40) of the 77 readmissions for which descriptive data were available identified behavior as a reason for seeking placement in a state hospital. Forty-seven percent (N=36) of the readmissions were for reasons other than behavior.

Table 11
Readmissions to State Hospitals: Behavior Problems
September 1, 1980 to December 31, 1981
(total readmissions = 95)

Readmissions	N	%
Behavior-related	40	51.9
Not behavior-related	36	46.8
Unspecified	1	1.3
Total	77	100.0

As indicated in Table 2, a large proportion (60 percent) of readmissions were classified as respite care. Although many of these respite care/ parental relief admissions were also associated with behavior problems, it is helpful to examine more closely those readmissions which were not classified as "short-term." Table 12 presents non-respite care readmissions to state hospitals during the sixteen-month period from September 1, 1980 to December 31, 1981. Over 90 percent of the non-respite readmissions were associated with behavior problems.

Table 12
Non-Respite Care Readmissions: Behavior Problems
(total readmissions = 95)

Non-respite care readmissions	N	%
Behavior-related	33	91.7
Not behavior-related	2	5.5
Unspecified	1	2.8
Total	36	100.0

Admissions from ICF-MRs

Thirty-seven percent (N=81) of the 222 admissions came from ICF-MR settings. Facility characteristics were identified in 62 admission reports. The average licensed capacity (size) of those 62 facilities was 37.9 residents. The smallest facilities were licensed to serve six people; the largest 171. Over half (56 percent) of the people admitted from those 62 facilities came from a residence which was licensed to serve 16 or fewer people.

Table 13
Admissions from ICF-MRs: Size Characteristics
September 1, 1980 to December 31, 1981
(total ICF-MR admissions = 81)

Licensed capacity	N	%	Range
1 to 6 residents	7	11.3	---
7 to 16 residents	28	45.1	7 - 16
17 to 32 residents	5	8.1	24 - 30
33 + residents	22	35.5	33 - 171
Total	62	100.0	6 - 171

Table 14 presents behavior-related admissions from ICF-MRs. The analysis excludes admissions to Cambridge State Hospital during the first nine months of the sixteen-month report period--no descriptive data on those admissions were available. The table indicates that a very high percentage of the admissions from ICF-MRs are related to residents' behaviors. Eighty-two percent of all admissions were behavior-related; 87 percent of admissions which were identified as readmissions were related to behavior.

Table 14
Admissions from ICF-MRs: Behavior Problems
September 1, 1980 to December 31, 1981
(total ICF-MR admissions = 81)

	Total admissions		Readmissions	
Admissions	N	%	N	%
Behavior-related	59	81.9	27	87.1
Not behavior-related	12	16.7	3	9.7
Unspecified	1	1.4	1	3.2
Total	72	100.0	31	100.0

V. SUMMARY/IMPLICATIONS

The admission reports indicate that over half of all admissions to state hospitals are because of behavior problems. Moreover, nearly all people who are returned to state hospitals for reasons other than respite care are readmitted because of behavior problems.

Most admissions come from either family homes or ICF-MR settings. Although the number of people admitted from group homes may be small relative to the total number of residents living in ICF-MRs, those admissions represent people who were determined to be ready, and were accepted for community placement. Those admissions may suggest a need for training in behavior management and/or the development of community support services.

Deinstitutionalization involves not only moving people out of institutions but also establishing community support programs which will reduce or eliminate initial admissions and readmissions. Several studies show that behavior problems are a major reason for admissions/readmissions to public institutions. The results from these studies corroborate those findings. The continued success of Minnesota's deinstitutionalization efforts will depend greatly upon the development of behavior management skills and appropriate services in the community.

Several authors have outlined a number of strategies for managing behaviors in community settings:

- developing specialized behavior management services utilizing existing resources such as mental health centers and state hospital staff; or creating crisis/home intervention teams. These models have two purposes: 1) to provide necessary behavior modification programming in the communities where the problems occur; and 2) to involve parents and community staff in the treatment programs, thereby providing them with essential training.

- developing residential models specifically designed to serve people with adaptive needs. Not everyone may "fit" into existing residential environments. One example of an alternative model might be specially trained foster care homes. Service providers are first trained and then expected to work with people who have special needs.

- emphasizing the development of smaller, home-like residences. Many attributes of smaller facilities increase the likelihood that behavior-related problems can be avoided: staff activities tend to be more client-oriented; the potential for consistency in implementing behavior management techniques is greater given the lower staff-resident ratios; responsibilities for individual clients are not easily ignored in smaller group settings.

- developing appropriate respite care/family support services. It has been estimated that six respite care slots may prevent from six to 20 admissions or returns in a year. Appropriate help at the right time can help prevent problem situations from getting out of hand and may help prevent institutional placements. Crisis center hotlines, mutual support groups and trainer-in-the-home programs can help families cope with situations when behavioral crises arise in the home. Similar programs for residential program staff could be developed.

- developing effective individual program plans. Appropriate, individualized program plans focus upon client-specific needs. It is helpful to have available written, individualized methodologies when attempting to deal with specific behavior problems. Individualized program plans also help to ensure that all members of the interdisciplinary team are actively involved in the development and growth of residents

Most importantly, communities and service providers must develop a commitment to keeping people in the community, to creating a community-based system which works:

> To assure the availability of a comprehensive array of community-based residential and habilitative

> services for persons in need of supportive residential living, good leadership and a dogged commitment to successfully creating such a system is required. Staff have to be resolved to keep the "IN" door to the institution barred but to not deny services for persons in need. This means staff are going to have to be tenaciously solution-oriented rather than problem-oriented. Instead of regretfully accepting someone in the front door to the institution "because of a problem," staff must aggressively pursue alternative means for addressing the client's, family's, or provider's particular needs which resulted in a knock on the door. This also means that state or county agencies will have to increase their awareness of and sensitivity toward responding realistically to the major needs perceived by community providers . . .
>
> (Leismer, 1981; pp. 1-2)

VI. REFERENCES

Developmental Disabilities Program. Policy Analysis Series No. 2: The size of community residential facilities: Current guidelines and implications for planning. St. Paul, MN: Developmental Disabilities Program, State Planning Agency, August 1981.

Developmental Disabilities Program. Policy Analysis Series No. 5: Admissions/readmissions to state hospitals September 1, 1980 to May 31, 1981: The behavior problem issue. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, August 31, 1981.

Leismer, J. Prevention of institutional admissions & returns: Especially those due to client behavioral difficulties (unpublished paper). July 29, 1981.

MR admissions evaluation (an unpublished report by social work representatives from the state hospitals; compiled by Charley Johnson, M.V.S.A.C.). Meeting held March 4, 1981.

Mental Retardation Program Division. A status report on progress toward meeting the objectives for the DPW six year plan for the mentally retarded in Minnesota during the first half year of the biennium, July 1, 1981 thru December 31, 1981. St. Paul, MN: Mental Retardation Program Division, Department of Public Welfare, February 1982.

Welsch-Noot Consent Decree. United States District Court, District of Minnesota, Fourth Division. U.S. District Judge Earl Larson. September 15, 1980.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

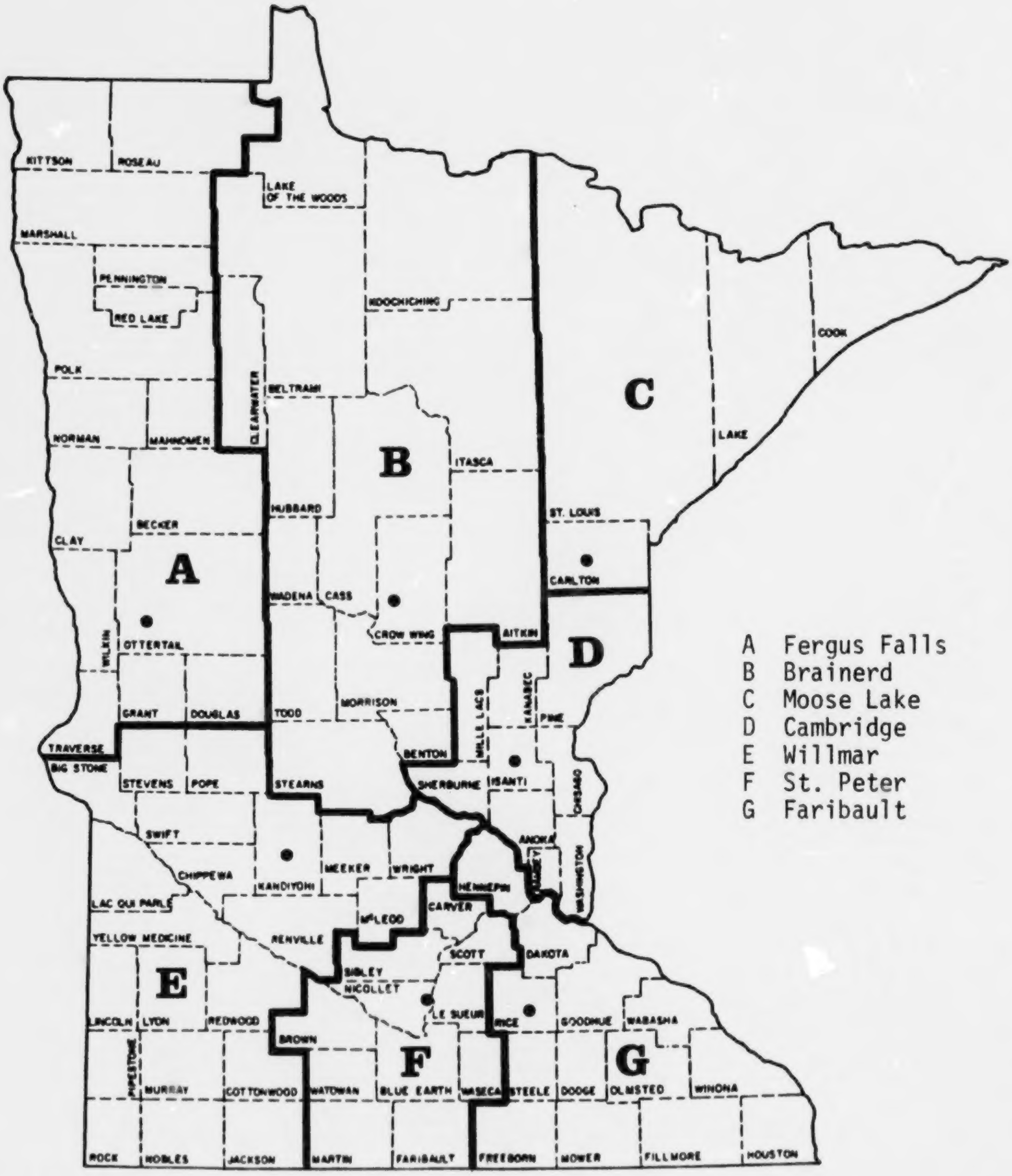
Richard Nelson, M.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #10: (An Update to Policy Analysis Series #5) Admissions/Readmissions to State Hospitals June 1, 1981 to December 31, 1981: The Behavior Problem Issue. St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, April 9, 1982.

APPENDIX

Mental Retardation State Hospital Catchment Areas


KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
KOOCHICHING
COOK
POLK
CLEARWATER
BELTRAMI
C
LAKE
NORMAN
MAHNOMEN
B
ITASCA
HUBBARD
ST. LOUIS
BECKER
CLAY
A
CARLTON
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
D
KANABEC
PINE
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
TRAVERSE
BENTON
BIG STONE
STEVENS
POPE
STEARNS
SHERBURNE
ISANTI
CHISAGO
SWIFT
ANOKA
CHIPPEWA
KANDIYOHI
MEEKER
WRIGHT
RAMSEY
WASHINGTON
HENNEPIN
LAC QUI PARLE
McLEOD
CARVER
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
NICOLLET
E
LE SUEUR
RICE
GOODHUE
WABASHA
LINCOLN
LYON
REDWOOD
BROWN
PIPESTONE
F
G
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

A	Fergus Falls
B	Brainerd
C	Moose Lake
D	Cambridge
E	Willmar
F	St. Peter
G	Faribault

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. NOOT / NO. 11

An Analysis of Minnesota Property Values of Community Intermediate Care Facilities for Mentally Retarded (ICF-MRs)

Since the 1960s, the ideology underlying provision of services to developmentally disabled people, and the methods of treatment deemed appropriate have undergone a dramatic shift.

The term "normalization" most frequently used to name this shift, encompasses several interrelated movements. Deinstitutionalization, the most important of these, aims to return developmentally disabled people to community settings and to enhance the system of care provided to those who remain in institutions.

Successful deinstitutionalization requires an adequate supply of appropriate community placements and implies integration of developmentally disabled people into the community. While the first requirement can be met with sufficient funds and other government action, integration into the community is a more subtle obstacle--a collection of factors which hamper community acceptance of developmentally disabled people. Zoning legislation and court action can force neighborhood compliance, but neither is equipped to deal with the emotional concerns that underlie a neighborhood's attempts to exclude a group home.

Wherever group homes are proposed, neighborhood opponents present a familiar litany of resistance. Though their concerns run the gamut from fear of increased criminal activity to concern for the safety of group home residents, these diverse complaints often mask a larger concern: decline in property values of their own homes.

This paper deals with the reality of property values in neighborhoods which contain a group home for retarded people. Using assessed value[1] as a measure, property values of group home neighborhoods were analyzed for the year preceding and the year following the establishment of the home. Changes in these property values were compared to changes in similar neighborhoods without group homes to determine if the establishment of a home caused a decline in the assessed value of surrounding property.

I. THE SITUATION IN MINNESOTA

Minnesota was an early leader in developing community alternatives to institutional care. The number of mentally retarded individuals in group homes has increased dramatically from the 100 residents who lived in five facilities in 1962. In July 1982, Minnesota had 298 group homes with a total licensed capacity of 4,781. At the same time, the number of state hospital residents diagnosed as mentally retarded declined from 5,542 in 1962 to 2,395 in March, 1982. The latest declines can be attributed to a recent court consent decree (Welsch v. Noot, 1980) which mandated an 850-person reduction in state hospital MR population by 1987 and sharply curtailed future admissions to state hospitals. The Welsch v. Noot decree, combined with general growth in the system, will generate demand for hundreds of new community spaces by 1987.

---

[1] Assessed value: the value of a home as determined by the tax assessor in calculating property tax. Because many states limit the annual increase in assessed value, the market value of a home often exceeds its assessed value.

Minnesota has not been immune to protracted opposition to group homes. Local ordinances, restrictive covenants, and narrow definition of "family" prevented the establishment of many group homes until a 1975 state law undercut local opposition (M.S. 462.357). The new legislation required that local governments treat group homes of six or less as single family residences. The lengthy process of public hearings and zoning approval was thus eliminated. The same law established group homes of 7-16 residents as multi-family dwellings for the purposes of residential zoning. Though a decade of court challenges ensued[2] the law has been upheld by the Minnesota Supreme Court.

II. LITERATURE REVIEW

The extensive literature which examines the impact of group homes on property values is unanimous in its conclusion: group homes do not reduce surrounding property values. Studies conclude this regardless of the method used to measure property values.

Measuring impact of group homes is a complicated process, and researchers have employed several methods. Generally, studies choose a sample of city blocks or census tracts which contain a group home. These group home blocks are each compared with a similar "control"[3] block. One of several measures of neighborhood impact might be used. Some studies look for increases in the number of sales in group home blocks as an indication that neighbors are trying to escape a nearby group home. Others try to determine if it takes longer to sell houses in group home blocks than in control blocks. But the central focus of most studies is change in property values.

Several measures of change in property values have been used. Generally, researchers compare: (a) changes in assessed property value in group home neighborhoods to changes in control (non-group home) neighborhoods; (b) sale price as a percentage of list price in both group home and control neighborhoods; or (c) sale price of homes sold before the group home was established to prices these same homes commanded when sold again after the group home opened.

---

[2] Most recently, Costly v. Caromin House, Inc. (313 N.W. 2d. 21 Minn. Supreme Court 1981).

[3] The control block is a residential block without a group home, but which is similar in all other respects to the group home block. By comparing group home blocks and control blocks, the effects of a group home on property values can be distinguished from changes in housing values generally.

Group home impact on surrounding property values has been examined in several parts of the United States and in a cross-section of neighborhoods.

A Lansing, Michigan, study (Lansing Planning Dept., 1976) found that the average sale price of homes in a group home neighborhood was equal to, or higher than the sale price of homes in control neighborhoods. A Philadelphia study (Dear, 1977) examined impact on a number of property transactions. Of 365 transactions tracked in a six block radius of the sample of group homes, 59% occurred before the facility opened, and 41% after. There were no declines in property values; indeed, homes adjacent to group homes experienced the largest increase in value.

An Ohio study of group home neighborhoods (Montgomery County Board of Mental Retardation, 1981) concluded that property values in these neighborhoods experienced the same increase or decrease in market price as homes in similar neighborhoods, that close proximity to a group home did not alter the market value, and that group homes did not generate more property turnover. Likewise, in White Plains, New York, a 1976 study (Breslow, 1976) tracked property values for six months before and three years after the opening of a facility. The general trend in property values was comparable to the control areas.

In the Philadelphia study, twelve neighborhoods which contained mental health group homes were examined. The investigators found that the number of sales was higher in group home neighborhoods. But the authors concluded that the mental health facilities were not the cause since the number of sales was not related to distance from the facility. Moreover, no decline in property values was found.

In the most extensive study of property values to date (Wolpert, 1978) property value changes of 42 neighborhoods in New York State were analyzed by focusing on homes which were sold before the group home opened, and again, after the establishment of the home. Once again, no relation was found between group home placement and decline in property values or number of transactions. Even adjacent homes experienced the same changes in property values as homes in control neighborhoods.

When a 1980 Columbus, Ohio, study (Mitchell and Wagner, 1980) used sale price as a percentage of asking price as the measure of property value, the authors concluded that the ratio did not decline in a neighborhood after a group home was established. Furthermore, homes in experimental neighborhoods sold just as quickly as homes in control neighborhoods.

III. METHOD

A complete list of group homes for the mentally retarded was compiled from Minnesota Department of Public Welfare licensing records. A random sample of 34 homes with six or fewer residents was drawn, though only homes for which a comparable control neighborhood could be located were included in this analysis. The final sample size of 14 group homes was evenly divided between homes located in the Twin Cities and homes located in the remainder of the state.

For each group home in the sample, the investigator marked out a one-block area and noted the exterior condition of each house. A control block of housing similar in age, maintenance, and assessed value was then selected.

Assessed value was used to measure property values, and was obtained from the local tax assessor's office. For each parcel in the group home and control blocks, the assessed value was obtained for the year preceding and the year following the establishment of the group home. Any property transactions during this two-year period and their sale prices were also recorded. The percent increase in value during the two years was calculated for each house and an average increase in assessed value was derived for each block. The results were then subjected to statistical testing to determine if differences occurred by chance or were statistically significant.

Table 1
Mean Percent Increase in Assessed Value for Group Home Blocks and Control Blocks (Minnesota ICF-MRs: 14 Paired Blocks, 1981)

Paired[a] Block	Mean Increase of Group Home Blocks[b] %	Standard Deviation[c]	N	Mean Increase of Control Blocks %	Standard Deviation	N
A	28.22	8.58	8	29.13	8.0	9
B	9.04	10.7	14	13.82	7.1	13
C	33.10	6.8	10	36.14	17.4	11
D	22.70	16.0	13	22.20	7.5	13
E	8.83	1.7	29	9.72	3.4	27
F	16.08	4.8	11	14.29	.6	10
G	37.92	3.8	14	39.30	7.7	24
H	35.86	11.9	30	30.77	12.3	29
I	17.59	4.8	13	17.91	4.8	23
J	31.07	8.6	9	31.09	6.7	13
K	50.34	21.9	33	48.80	15.2	38
L	15.48	5.1	24	14.08	5.9	26
M	12.71	11.0	12	19.44	12.0	11
TOTAL	25.96%		220	26.7%		247

---

a) Each block with a group home was paired with a similar block without a group home, the "control" block. There were 14 pairs in the study. (A-M)

b) The mean is a measure of central tendency, often called the "average." The mean percentage increase for each block was calculated by totalling the percent increase in assessed value for each house in the block and dividing by the number of houses.

c) Standard deviation measures whether individual percentages "cluster" around the mean percentage increase for the block. The standard deviation will be small in blocks where the percent increase in value was similar for each home.

Table 2
Difference in Mean Percent Increase in Assessed Value for Group Home Blocks and Control Blocks.
(Minnesota ICF-MRs: 14 Paired Blocks, 1981)

Paired Blocks	Difference in Mean[a] Percent Increase %	t-value[b]	df	p[c]
A	.91	-.226	15	.83
B	4.78	-1.377	22	.18
C	3.04	-.538	13	.60
D	-.50	-.103	17	.92
E	.89	-1.222	37	.23
F	-1.79	1.232	10	.25
G	.38	-.206	35	.84
H	-5.09	1.619	56	.11
I	-.33	-.197	34	.85
J	.02	-.004	14	.99
K	-1.54	.335	55	.74
L	-1.41	.897	48	.37
M	6.73	-1.403	21	.18
TOTAL	.74			

---

a) The mean percentage increase for control blocks was subtracted from the mean percentage for the corresponding group home block.

b) The t-test helps determine if the difference between means is significantly different. The higher the t- value, the more likely that the difference in means is real and not the result of chance fluctuation. None of the t-values here are statistically significant (for $p < .05$).

c) The p value refers to statistical probability value. The p value of .05 indicates the probability of the event's occurrence (by chance) is less than 1 in 20.

IV. RESULTS

Assessed value increase

Tables 1 and 2 list the average increase in assessed value for each control block and each group home block. Although differences were found when the assessed value increase for group home blocks was compared with the increase for control blocks, none of the differences was statistically different ($p < .05$).

Mean percent increase in assessed value ranged from 9% - 50% for group home blocks and from 9.7% - 49% for control blocks. However, as Table 2 details, the differences are not all in the same direction. In five instances, the mean percent increase in assessed value was higher in the group home neighborhood. Also note that the standard deviations vary substantially which may indicate that a few extreme cases are artificially affecting the mean value for a specific block. However, an inspection of the median percent increase demonstrated that median increases in assessed value for group home blocks did not vary substantially from the corresponding control block medians.[4]

Overall, the mean percent increase for houses in group home blocks was 25.9% while all houses in control blocks experienced an average 26.7% increase in assessed value.

Number of transactions

Although the sample included 220 houses in group home blocks and 247 houses in control blocks, only 75 property transactions were recorded during the year preceding and following establishment of a group home. These 75 transactions were almost evenly divided between group home blocks (48%) and control blocks (52%), which seems to indicate that group homes do not cause excessive numbers of transactions.

The analysis of these transactions found that for group home blocks, 49% occurred in the year before the group home was established and 51% occurred after the home was established. In control blocks, the figures were 36% and 64% respectively. Again, the timing of transactions seems unrelated to the establishment of a group home.

V. DISCUSSION

This study confirms the results of earlier research on group home impact on the surrounding neighborhood. Changes in property values are not related to the presence of a group home in the block. Similarly, neither the number nor the timing of property transactions in a neighborhood has anything to do with the establishment of a group home.

While the results of this analysis unequivocally support this conclusion, there are limitations to this data. First, assessed value may be an imperfect measure of market value. Because annual assessed value increases are limited by law, assessed value is rarely as high as market value. Second, because many of the group homes in the sample were established after 1979, the small number of property transactions may reflect a general downturn in the housing market rather than satisfaction of property owners with their new group home neighbors.

---

[4] The median is the value above which and below which half the values fall. The median is not distorted by extremely large or small values.

REFERENCES

Banda, J. & Lippert, T. Developmental Disabilities Trends and Services in the Twin Cities Metropolitan Area. St. Paul: Metropolitan Health Board, 1980.

Bates, M. State Zoning Legislation: A Purview. Madison: Wisconsin Council of Developmental Disabilities, 1981.

Breslow, S. The Effect of Siting Group Homes on the Surrounding Environs. Unpublished manuscript, 1976.

Carroll, A. & Chronin, M. Group-Based Residential Facilities in Minneapolis. Minneapolis: City Planning Commission, 1980.

City of Lansing Planning Department. The Influence of Halfway Houses and Foster Care Facilities Upon Property Values. Lansing, Michigan: Author, 1976.

Dear, M. "Impact of Mental Health Facilities on Property Values," Community Mental Health Journal, 1977.

Department of Public Welfare. Residential Care Study. St. Paul: Author, 1979.

Mambort, T., Thomas, E. & Few, R. Community Acceptance: A Realistic Approach. Dayton: Montgomery County Board of Mental Retardation and Developmental Disabilities, 1981.

Mitchell, D., & Wagner, C. Group Homes and Property Values: A Second Look. Columbus: Metropolitan Human Services Commission, 1980.

Wolpert, J. Group Homes for the Mentally Retarded: An Investigation of Neighborhood Property Impacts. New York: State Office of Mental Retardation and Developmental Disabilities, 1978.

The Policy Analysis Series is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair - Colleen Wieck, Ph.D., Director

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions of this problem. This paper may be cited:

Developmental Disabilities Program. Policy Analysis Series #11: An Analysis of Minnesota Property Values of Community Intermediate Care Facilities for Mentally Retarded (ICF-MRs). St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, July 1, 1982.

POLICY ANALYSIS SERIES

VOLUME II

ISSUES RELATED TO WELSCH v. LEVINE / NO. 12

ANALYSIS OF NONFORMAL TRAINING FOR PERSONNEL WORKING IN THE FIELD OF DEVELOPMENTAL DISABILITIES IN MINNESOTA: 1981-1982

> Adult education is needed to help us to change--to acquire knowledge and understandings in order to help us to mature. Careful planning can set the conditions for change. It is difficult to name a more demanding task. Yet much of the planning by adult education agencies is haphazard. Often the planning is the last-minute, stopgap kind of effort summed up in the phrase "Whom can we get to talk to our group at the next meeting?" If we are to take the task of planning our adult education seriously, we will need a systematic approach. (Bergevin, Morris, & Smith, 1963, p. 8)

I. INTRODUCTION

This paper is the first of a three-part series to address the overall requirement set forth in the Developmental Disabilities Assistance and Bill of Rights Act (P.L. 95-602) 1978, which states:

> The (State) plan (for developmental disabilities) must provide for . . . an assessment of the adequacy of the skill level of professionals and paraprofessionals serving persons with developmental disabilities in the State and the adequacy of the State programs and plans supporting training of such professionals and paraprofessionals in maintaining the quality of services provided to persons with developmental disabilities in the State . . . .. (42 USC 6009)

The focus of this study is on nonformal training activities taking place in Minnesota for personnel working with people with developmental disabilities. Nonformal training refers to those educational experiences such as conferences, workshops, seminars, in-service training, or courses that take place outside of the traditional (formal) postsecondary institutions (e.g., colleges, universities, vocational schools) and are sponsored by professional organizations, governmental agencies, service agencies, or continuing education programs. Nonformal training events are usually designed to meet the individual and collective needs and interests of people who share similar job responsibilities, work settings, and/or clientele. Nonformal training may or may not have linkage with the formal educational sector, e.g., arrangements for issuance of credits and/or certification.

II. REVIEW OF LITERATURE

Inevitably, when the quality of human service programs is evaluated, a major factor is the competency of the personnel. A review of the literature indicates that nonformal training efforts have been fragmented, uncoordinated, piecemeal, and reactive to crises and events as opposed to being proactive, thoughtfully planned, organized, and sequenced in scale with current developmental and behavioral technology.

According to a national study conducted by the New Careers Training Laboratory at the City University of New York, "we are confronted with a promise--performance gap . . . .. Where expectations have been raised and commitments have been made to improve the quality and variety of services available to meet the diverse needs of persons with developmental disabilities, these new and improved services must be provided within budgetary constraints." (1979, p. 8).

In face of the major sociopolitical changes in attitudes and practices during the last two decades, changes that have been brought about by deinstitutionalization, communitization (Jones, 1979), and normalization, several issues have surfaced regarding personnel training and development. These issues are, indeed, complex but must be confronted.

A. Training Issues Relating to Deinstitutionalization

As the population of public residential facilities moves to community settings, so also must resources be reallocated, including personnel. Deinstitutionalization plans must provide for retraining of staff for possible job transfer to community programs with assurance of career mobility and continuity of employment (New Careers Training Laboratory, 1979). Where labor unions have often impeded progress toward these transitions, they must be included in the dialogue during the early planning stages so that deinstitutionalization can occur with minimal resistance to change and so that employees' rights are given due respect (Apolloni, Capuccilli, & Cooke, 1980).

At the same time, there has been increased demand for improving the skills of those who work in state facilities. This need was addressed in the Minnesota *Welsch v. Noot* Consent Decree (September, 1980):

> In-service training programs at the state institutions shall include increased emphasis on the proper care of physically handicapped persons (with particular emphasis on their positioning needs), proper implementation of

> behavior management programs, effective training for severely and profoundly retarded persons in communication skills, and training with regard to the services provided mentally retarded persons by residential and nonresidential community service providers. (Paragraph #60)

Continued success of deinstitutionalization, however, is directly dependent upon the strength of those services provided in the community. This is particularly substantiated by the figures relating to admissions and readmissions to state hospitals. In Minnesota, as well as nationally, "over half of all admissions to state hospitals are because of behavior problems. Moreover, nearly all people who are returned to state hospitals . . . are readmitted because of behavior problems" (Minnesota Developmental Disabilities Program Office, *Policy Analysis Paper No. 10*, p. 14). Provencal suggested a solution, "Good training of providers virtually eliminates the phenomenon of clients returning to the institution because he or she failed to adjust . . . if there is any failure, we are the ones who have failed" (Provencal, in Apolloni et al., 1980, p. 36).

The most critical time for interaction between state-operated facility staff and community service providers is before community placements occur. In personnel training, there must be instilled not only a commitment toward actively seeking less restrictive placements, but the staff must also be receptive to new knowledge and directions from the placement agency. As they have experienced in the Macomb-Oakland Regional Center in Michigan, "if we carefully select and prepare the people who will be receiving the person leaving the institution, virtually anyone can move to the community at large. This belief has led us to place tremendous efforts in training foster parents and group home personnel" (Provencal, in Apolloni et al., p. 28).

B. Training Issues Relating to Community Services

In 1974-75, when the *CAIR Report* (Community Alternatives and Institutional Reform) was being prepared by task force members in Minnesota, there were at least 75 different services identified that might be required at various times in a lifetime by persons with developmental disabilities living in community settings. The variety of settings and services needed is complicated further by the multiple disciplines, both professional and paraprofessional, involved in delivering these services. Increasingly, the concept of interdisciplinary service and training has become recognized and implemented. Continued success of interagency coordination is dependent upon individuals working together for the benefit of persons with developmental disabilities and their families (Elder & Magrab, 1980, p. 22).

The *CAIR Report* was very specific in recommending that a single, statewide agency be delegated the responsibility and funding:

- to develop an ongoing inventory of instructional programs for the developmentally disabled;

- to train staffs and parents on educational strategies which can be applied to promote the development of developmentally disabled persons in all behavioral areas; and

- to train staff to have demonstrated competence in educational and behavioral programming, data collection and analysis, and design and implementation of individualized program plans. (p. 6)

To date, there has been little progress in Minnesota toward the implementation of the *CAIR* recommendations relating to training. This has been a common experience in many other states as well. The development of task analysis, standard job descriptions, training curriculums, and career ladders have been desired by the many actors in the field of developmental disabilities, but these tasks have not been accomplished because "it wasn't anybody's job" (Provencal, in Apolloni et al., 1980, p. 29).

Another barrier to progress has been turf protection. "Governmental agencies, private agencies, unions, and professional organizations all agree with advocacy groups that there is a need for better services . . .; however, there is little agreement as how to bring it about" (New Careers Training Laboratory, 1979, p. 5).

One of the many problems that emerges when existing living arrangements are assessed against the principles and standards of normalization and civil rights guarantees is that "there has not been a commitment to systematic staff development that would assure the availability of sufficient knowledgeable and competent service workers (including caregivers) fully grounded in program philosophy and progressively advancing toward career objectives with state sanctions" (Apolloni et al., 1980, p. 10). Issues such as licensure and certification at the professional level and some type of competency-based credentialing at the direct care level can address in a global fashion the question of staff abilities. The continual updating of skills and knowledge is essential for all staff if new and more advanced teaching and training technologies are to be incorporated into the day-to-day services.

An immediate challenge called for by those in the training field (Jones, 1979; Pickett, 1980; Ramseyer, 1980; Wray, 1980) is the heightening of and the full recognition of the status of the paraprofessional. The traditional perceptions of the roles, functions, and responsibilities of paraprofessionals as being custodial, housekeeping, and clerical must be enhanced not only by equipping them with the knowledge and skills required to do their jobs better but by providing them with commensurate pay and opportunities for advancement through viable career ladders.

In recent years, a nationwide system for voluntary registration and certification of mental health/human service workers has been promoted and developed by the Paraprofessional Manpower Branch of the National Institute of Mental Health. From this effort, a new organization has been created--the National Commission for Human Service Workers, located in Atlanta, Georgia. Registration as a mental health/human service worker provides a simple and inexpensive procedure for large numbers of workers to achieve basic occupational identity. A person who has had at least 30 hours of training, 3 months of experience, and pays a $15 fee can be registered as a human service worker. Certification is a voluntary, competency-based system designed to assess and certify generic mental health/human service competence. This national certification process involves three assessments: (1) an objective multiple choice test; (2) a clinical simulation exercise; and (3) the assembly of a portfolio documenting the worker's competence (National Commission of Human Service Workers, 1982). This national system of registration and certification may serve as a base upon which to build other specialization requirements here in Minnesota.

C. Training Issues Relating to Staff Turnover

Recruitment, retention, and training of staff have been cited as pervasive problems plaguing administrators of both public and nongovernmental, community-based residential facilities alike (Bruininks, Kudla, Wieck, & Hauber, 1980). Direct care staff, who make up the largest portion of the budgets in these facilities, earn well over $1 billion of state and federal monies in wages (Bruininks, Hauber, & Kudla, 1979). Many thousands more are spent in recruiting, training, and placing employees.

Turnover among direct care staff has been documented as alarmingly high, occurring at the rate of over 50% (national mean annual rate) in nonpublic facilities and over 30% in public facilities (Lakin, 1981).

Costs for replacing personnel, providing training alone, have been estimated at $1,500 per person in public institutions in Tennessee (Zaharia & Baumeister, 1978) to $3,000 per person in Massachusetts (Massachusetts Manpower Services Council, 1978). Although replacement costs were found to be lower in community-based residential programs, from $200 to $500 per person (George, 1980), the cumulative effects in terms of precious dollars, administrative overhead, wasted time and effort, and most importantly, the resulting deterioration of the quality of care provided clients, presents a major challenge and threat to the ongoing success of these programs. It becomes evident that millions of dollars could be saved/rechanneled by reducing the high turnover among direct care staff alone (Lakin, 1980).

The solutions to staff turnover may not be very complex; Hitzing (Apolloni et al., 1980), from the Eastern Nebraska Community Office of Retardation (ENCOR) suggested one alternative approach. "The biggest reason for staff turnover may be that people don't understand what they're getting into. One important aspect of training for ENCOR's residential staff is an early session where staff members talk about what it is like to be a residential manager. ENCOR has learned to be honest early about what new staff people are getting into and that has helped reduce staff turnover later" (p. 91).

D. Training Issues Relating to Adult Education

Freiberg (1979) probably best described the current state of the art relating to the quality of nonformal training programs being provided in almost every segment of human services:

> Many inservice programs lack a conceptual framework. Some are not programs at all but a series of disparate experiences. Local programs are too often based on a cafeteria approach . . .. Learning theories and research are ignored in conceptualizing the design, development and implementation of such programs . . . (Thus,) determining the effectiveness of piecemeal programs without the benefit of a systematic design within a rigorous conceptual framework becomes a futile exercise. (p. 8)

There is much to be gained by turning to the growing knowledge base in adult education and asking questions such as "How do adults learn?" Adult learning is premised on at least four crucial assumptions. As individuals mature: (1) their self-concept moves from one of being a dependent personality toward being a self-directed human being; (2) they accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning; (3) their readiness to learning becomes oriented increasingly to the developmental tasks of their social roles; and (4) their time perspective changes from one of postponed applications of knowledge to immediacy of application, and accordingly, their orientation toward learning shifts from one of subject-centeredness to one of performance-centeredness (Kidd, 1973).

Implications from these basic assumptions toward practice in adult education are that:

- There is a need to build into training programs some preparatory experiences that will help adults to get a new way of perceiving their roles as learners and to gain some new skills in self-directed learning. Poor self-concepts resulting from earlier classroom experiences with failure and disrespect must be replaced with an attitude that learning can be enjoyable as well as successful.

- Learning environments must be conducive to adult learning. "One can sense rather quickly on entering an institution (of higher learning), for example, whether it cares more about people or things, whether it is concerned about the feelings and welfare of individuals or herds them through like cattle, and whether it views adults as dependent personalities or self-directed human beings." (Knowles, 1980, p. 47)

- Adult learners must be intimately involved in diagnosing their own needs for learning and in measuring their own progress toward achieving desired competencies. Creative techniques such as critical incidents, sociodrama, computerized games, laboratory methods, and simulation exercises can be used for self-evaluation. Adult learners must be involved in planning and conducting their learning experiences. People feel committed to a decision if they have participated in making it. Knowles stated that, "Because adults define themselves largely by their experiences, they have a deep investment in its value. And so when they find themselves in situations in which their experience is not being used, or its worth is minimized, it is not just their experience that is being rejected--they feel rejected as persons." (p. 50)

- Evaluation, thus, becomes a process of rediagnosing learning needs by the adult learner and not an act by the teacher grading the student.

Fraiberg (1979) also astutely noted that, "No educational program can be better than those who design and deliver it, yet little attention is paid to training the trainers" (p. 7). Knowles (1980) maintained that in recent years adult educators are referred to increasingly in the literature as "change agents," as performing "helping roles" (p. 37). Their function has moved away from being remedial toward developmental--toward helping adult learners to achieve their full potential.

These terms and phrases are all too familiar to those of us who practice in the field of developmental disabilities, for they have been a part of our vocabulary for years. However, they are healthy reminders that we should be practicing what we preach--to apply the same principles of learning to ourselves and our own development. In this sense, states Knowles, "It is no longer functional to define education as a process of transmitting what is known; it must be defined as a life-long process of continuing inquiry. And so the most important learning of all--for both children and adults--is learning how to learn, the skills of self-directed inquiry . . . to create an educative society" (p. 38).

Resources for learning are everywhere in our environment and people can get help in their learning from many other persons. "The modern task of education, therefore," says Knowles, "becomes one of finding new ways to link learners with learning resources" (p. 20).

E. Training and Staff Development in Other States

Several states in the U.S. and provinces in Canada have taken aggressive action to address their personnel training needs (New Careers Training Laboratory, 1979). States in this country include: Arkansas, Indiana, Michigan, New York, Oregon, Pennsylvania, South Dakota, Nebraska, and Utah. Details about Michigan and Nebraska are described below.

Michigan: Training has been made mandatory at the entry level and for ongoing in-service training (Provencal, in Apolloni et al., 1980, p. 32; Leismer, 1981, p. 2).

Staff in group homes were required to have 120 hours of preservice and 80 hours of in-service annually. Staff in state residential facilities were required to have 240 hours of preservice and 140 hours of in-service training annually. The Michigan State Department of Mental Health developed a training model to (re)train direct care workers in state facilities. Training was linked to promotion. Employees enter as a trainee or as a direct care staff or supervisor. Curriculum included:

Phase I: 120 hours core curriculum.

Phase II: 290 hours OJT to develop competencies for service delivery.

Phase III: 80 hours orientation to specific facility.

Phase IV: academic credit.

The Macomb-Oakland Regional Center (MORC) was successful in recruiting and training foster parents with 35 new homes for 1 to 3 residents at the cost of $34 per diem in 1981 (Leismer, 1981).

Of particular note, MORC had adopted the philosophy that the agency should not have to recruit personnel. "If the experience is esteemed as being attractive, they come to us" (Provencal, in Apolloni et al., p. 25). "We select foster parents and group home personnel who are not only well-qualified and interested in working with people who have special needs, but who are also committed to learning themselves. In this regard, we have found that the desire to increase knowledge of theories, trends, and techniques is a far better indicator of foster parent effectiveness than years as a parent, educational degree, or years of being in the field" (Provencal, op. cit., pp. 27 and 28).

Nebraska: To comply with the Consent Agreement in *Horacek v. Exon*, the Nebraska Retardation Panel appointed a Task Force on Manpower Development in September, 1978. A statewide humanpower training model was developed for persons working in community residential facilities (Nebraska Mental Retardation Panel, 1979). Uniform standards were applied throughout the state with the community college serving as the principal means of humanpower development. Five levels of training provided the framework for a career ladder: support staff, aides, technicians, professionals, managers, or teachers. One year of college was required for direct care staff, with salaries upgraded. Statewide credentialing was initiated.

Reflecting upon the training program at the Eastern Nebraska Community Office of Retardation (ENCOR), Hitzing (Apolloni et al., p. 89) spoke openly, "One important thing to understand is that although ENCOR has been viewed as providing exemplary residential service, it has never had an outstanding (staff) training program. In fact, I don't know of any community-based program in the United States that does. If there is one aspect of community service development of which we should be ashamed, it is training."

III. METHODOLOGY

In the fall of 1981, structured interviews were conducted with key informants representing 19 different agencies or organizations in Minnesota. The main criteria used for selecting an agency or organization was that they were providing nonformal training on a regular basis for personnel working in the field of developmental disabilities. The respondents were those who had the authority to speak on behalf of their respective agencies or organizations, such as the director, executive secretary, training unit supervisor, or staff trainer/coordinator.

The 19 agencies or organizations that comprised the selected sample for this study fall into four major classifications of training providers: (1) state agencies (N = 4); (2) professional organizations (N = 8); (3) community residential service providers (N = 3); and (4) continuing education (N = 4). The agencies/organizations included in this survey are:

State Agencies (N = 4):

- Special Education, Minnesota Department of Education;
- Technical Consultation and Training Section, Division of Health Systems, Minnesota Department of Health;

- Staff Development Office (St. Paul), Minnesota Department of Public Welfare; and
- Staff Development, Faribault State Hospital, Minnesota Department of Public Welfare.

Professional Organizations (N = 8):

- AAMD, American Association on Mental Deficiency (Minnesota Chapter);
- ARRM, Association of Residences for the Retarded in Minnesota;
- MDACC, Metropolitan Developmental Achievement Center Council;[1]
- MARF, Minnesota Association of Rehabilitation Facilities;
- MNABA, Minnesota Association of Behavior Analysis;
- MAP, Minnesota Association of Private Residential Facilities for the Mentally Retarded;[2]
- MCEC, Minnesota Council for Exceptional Children; and
- MNDACA, Minnesota Developmental Achievement Center Association.

Community Residential Service Providers (N = 3):

- Olmsted Association for Retarded Citizens (ARC) Homes, Inc.;
- Portland Residence, Inc.; and
- REM, Inc., Robert E. Miller, Inc.

Continuing Education (N = 4):

- CCE, Center for Continuing Education, Rehabilitation Services Administration, Region V, c/o Multi Resource Centers, Inc.;
- Chronic Disease in Childhood Curriculum Development Project, Program in Maternal and Child Health, University of Minnesota;
- Continuing Education in Social Work, University of Minnesota; and
- Sister Kenny Institute, Research and Education Department, Abbott-Northwestern Hospital.

The findings in this study are based on a selected sample and do not attempt to identify or describe the universe of nonformal training activities. For example, this report includes only three community residential programs that provide on-site preservice and in-service training and does not include samples of other types of services, e.g., developmental achievement centers, special education programs, or sheltered workshops. A separate survey of community residential services and developmental achievement centers regarding in-service training will be published in *Policy Analysis Paper No. 14.*

---

[1] MDACC was dissolved July, 1982.

[2] MAP has now been merged with ARRM.

IV. RESULTS

The results section will be presented in the following order: (a) analysis of statements of purpose, (b) training needs assessments, (c) selection of training topics, (d) evaluation methods, (e) finances, (f) number of people trained, (g) number and locations of training events, (h) training content and trends, (i) coordination needs and barriers, and (j) suggestions for future training efforts.

A. Analysis of Statements of Purpose

The respondents were asked to provide written or verbal statements of purpose for their agency, organization, or particular training unit. All had the following common elements within their statements of purpose: (a) to work continuously toward the improvement of the quality of services offered to people with developmental disabilities, (b) to achieve such program enhancement by increasing the competency levels of personnel. The professional organizations included an additional dimension to the statement of purpose that pertained to morale building and the improvement of professional status or image.

B. Training Needs Assessments

Table 1 displays the methods used by the respondents in assessing the training needs of their audiences. As indicated, most of the methods used were informal (e.g., receiving verbal input from the participants or training committees) as opposed to conducting surveys, compiling data from program or personnel performance reviews, or using an external consultant/evaluator. Another common method for assessing training needs was the tabulation of suggestions received from evaluations of past training activities. Only one organization received input from the ASSET Project (Adjusting Service Systems to Evolving Therapies) (see p. 26), where members of the organization were formally tested according to competencies in a highly specialized area--aversive treatment.

Table 1
Methods of Assessing Training Needs
by Category of Agency/Organization
(Fall, 1981)

	TRAINING PROVIDERS									
	State Agencies (N = 4)		Professional Organizations (N = 8)		Community Residential Service Providers (N = 3)		Continuing Education (N = 4)		Total (N = 19)	
METHODS OF ASSESSING TRAINING NEEDS	N	%	N	%	N	%	N	%	N	%
Informal Methods:										
Input from staff, committees, or membership	4	100	8	100	3	100	4	100	19	100
From evaluations of past training activities	4	100	8	100	1	33	4	100	17	100
Formal Methods:										
Formal surveys	0	0	1	13	1	33	1	25	3	16
Licensing compliance reviews or monitoring reports	2	50	0	0	2	66	0	0	4	21
External evaluations/consultants	2	50	0	0	0	0	0	0	2	11

C. Selection of Training Topics

The respondents were asked, "Who selects the training topics?" Implied in this question is whether decisions are made by management and/or central staff or by means of a wider participation from those receiving the training (e.g., through board/committee participation). The responses are displayed in Table 2.

State agencies employ several methods for making their decisions. While management and staff make the final decisions, they depend upon input from advisory/planning committees. Professional organizations, on the other hand, usually do not have central staff and depend solely upon committee/board decision making.

Table 2
Authority for Selection of Training Content
and Methods by Category of Agency/Organization
(Fall, 1981)

CATEGORY OF AGENCY/ ORGANIZATION	DECISION MAKERS					
	Management and/or Staff		Board and/or Planning Committee		Trainees	
	N	%	N	%	N	%
State Agencies (N = 4)	4	100	3	75	1	25
Professional Organizations (N = 8)	0	0	7	86	1	13
Community Residential Service Providers (N = 3)	3	100	0	0	0	0
Continuing Education (N = 4)	3	75	0	0	2	50

Where the decisions are left to the choice of the trainees, it is usual for a group of trainees to request a particular topic, e.g., through continuing education or a state agency. Or, again, the trainees make the decisions when they are part of an organization that practices participatory management.

D. Evaluation Method

This question assessed how nonformal training activities were being evaluated. The respondents were presented with three levels by which training might be evaluated:

Level 1: feedback evaluation, usually provided in the form of a feedback sheet which elicits positive or negative reactions from the trainee about the training experience.

Level 2: learning evaluation, paper and pencil tests, work samples, or demonstrations that illustrate what principles, facts, or techniques have been learned.

Level 3: behavior change or transfer evaluation, which measures changes in work performance, learning retention, and learning transfer to the job situation once training has been completed. Measurement of behavior change is usually accomplished by self-ratings, follow-up surveys, or videotape recordings.

While all of the respondents used feedback evaluation (see Table 3), only a few (5 of 19, or 26%) measured what learning took place, or if learning was transferred to the job (1 of 19, or 5%).

Table 3
Methods Used to Evaluate Nonformal Training Activities by the Selected Sample Agencies/Organizations[a]
(Fall, 1981)

	METHODS OF EVALUATION				BEHAVIOR CHANGE OR LEARNING TRANSFER	
	Feedback		Learning			
TRAINING PROVIDERS	N	%	N	%	N	%
State Agencies (N = 4)	4	100	2	50	0	0
Professional Organizations (N = 8)	8	100	0	0	0	0
Community Residential Service Providers (N = 3)	3	100	2	66	1	33
Continuing Education (N = 4)	4	100	1	24	0	0

[a] More than one response was permitted.

E. Expenditures on Nonformal Training

Respondents were asked to provide an estimate of the dollars expended for provision of nonformal training for 1981. Not all the agencies or organizations could provide these figures (see Table 4). In some cases, estimates were made since records were not kept separately for the developmental disability category. The total amount of money spent on nonformal training activities by these agencies was over $4.5 million. There are no baseline figures available for comparison. Most respondents anticipated budget cuts due to state and national economic conditions.

Table 4
Expenditures on Nonformal Training by the Selected Sample of Training Providers
(Fiscal Year 1981)

Training Providers	Expenditures (estimated)
State Agencies (N = 3 of 4)	$ 430,330
Professional Organizations (N = 8)	79,300
Community Residential Service Providers (N = 3)	77,370
Continuing Education (N = 4)	3,923,000[a]
TOTAL (N = 18 of 19)	$4,510,000[b]

[a] This figure is the total budget not the amount allocated for developmendal disabilities.

[b] This figure overestimates the total amount spent on developmental disabilities training (see footnote a).

F. Number of People Trained

Although requested, very few respondents were able to document the number of people who attended their training sessions, conferences, or seminars. Those individuals who did provide this information had kept excellent records, but these instances were relatively infrequent so that it became impractical to report the results of this question.

G. Number and Location of Training Events

A frequent complaint heard from personnel living outside of the Twin Cities has been that training events are never (or almost never) scheduled in their particular geographic location. The results of this question documents that such complaints are usually valid.

Among the 19 training providers surveyed, there were 15 agencies or organizations that served the entire state. Table 5 reflects that out of 263 training events sponsored by these 15 trainers, 57% were located in Region Eleven, the metropolitan, seven-county area of the state.

Table 5
Number and Location by Region of Nonformal Training Events
Sponsored by Training Providers Who Serve
Statewide Constituents
(Fiscal Year 1981)

	State Agencies (N = 3)		Professional Organizations (N = 8)		Continuing Education (N = 4)		Total (N = 15)	
Region	N	%	N	%	N	%	N	%
One	4	4.0	0	0.0	0	0.0	4	2.0
Two	2	2.0	0	0.0	0	0.0	2	0.8
Three	4	4.0	3	4.0	0	0.0	7	3.0
Four	2	2.0	0	0.0	0	0.0	2	0.8
Five	9	8.0	4	5.0	0	0.0	13	5.0
Six E and W	12	11.0	0	0.0	0	0.0	12	5.0
Seven E and W	10	9.0	6	7.0	0	0.0	16	6.0
Eight	1	1.0	0	0.0	0	0.0	1	0.4
Nine	6	5.0	8	9.0	0	0.0	14	5.0
Ten	9	8.0	3	4.0	0	0.0	12	5.0
Eleven	20	19.0	62	71.0	69	100.0	151	57.0
LOCATION NOT REPORTED	29	27.0	0	0.0	0	0.0	29	10.0
TOTAL	108	100.0	86	100.0	69	100.0	263	100.0

When comparing the results among the different types of trainers, however, there are some major differences. State agencies scheduled the highest percentage of training events around the state, with only 19% of their events held in Region Eleven in fiscal year 1981. In the same year, eight professional organizations held 71% of their events in Region Eleven, and the four continuing education programs held all of their 69 events in Region Eleven.

It should be noted that the following agencies were excluded from this analysis, for they provide localized training by nature of their geographic focus: Faribault State Hospital; REM, Inc.; Portland Residence; Metro DAC Council; and Olmsted ARC Group Homes.

H. Training Content and Trends

The key informants provided lists of topics and schedules of their nonformal training activities. A complete list was compiled for fiscal year 1981 and only a partial list for fiscal year 1982. The quantity of this information is surpassed only by the diversity of topics covered. Because of the volume of information collected about topics, only a sample of one organization's annual conference is displayed in Table 6 to illustrate the diversity.

One way of measuring and analyzing the content of nonformal training that took place in fiscal year 1981 is to examine the number of hours spent in actual training. Another approach is to note the frequency of topics that occurred among the various nonformal training programs in order to observe certain patterns or trends.

During fiscal year 1981, a total of 3,779 hours of training was provided by the 19 selected agencies/organizations (see Table 7).

The topics were categorized into four general content areas: (1) administration/management; (2) information exchange/issues; (3) human growth and development; and (4) treatment/training techniques. When comparing the number of hours spent in each of these general content areas, it appears that there is a fairly even distribution or coverage of all four content areas (see Table 7). There was a range from 646 hours in information exchange/issues to a high of 967 hours addressing treatment/training techniques. This even distribution is also noticeable among the four types of training providers.

Tables 8 and 9 display the topics that occurred most frequently among the training topics provided in fiscal year 1981 and fiscal year 1982, respectively. The greatest number of hours, collective among the training providers, was in the area of behavior management and behavior problems which also included the management of aggressive behavior and self-protection for staff. A total of 264 hours was provided on behavior management in fiscal year 1981 and 63 hours in fiscal year 1982. (NOTE: the data collected for fiscal year 1982 was not complete.) Table 10 compares the number of hours on behavior management by category of training providers in relation to the total number of hours of training provided. Professional organizations devoted 24% of their total training hours to behavior management.

Repetition of topics suggests certain trends. Some were indicative of the times we live in, such as the topic of "cut-back management" in Table 9 (fiscal year 1982). Other topics, e.g., abuse and neglect of the vulnerable adult, were in response to newly enacted legislation. Other topics with highest frequencies may reflect the nature of the needs of the clientele, such as human sexuality, the

Table 6
Sample of One Professional Organization's Annual Conference Topics
Minnesota Developmental Achievement Center Association
(Fiscal Year 1981)

General Content Areas	Conference Topics
Administration/Management	Program Promotion Interagency Planning for Infants and Toddlers Program Evaluation Personnel Policy and Performance Appraisal Fringe Benefits Survey Report Board and Staff Insurance Function of Board under Community Social Services Act Board/Staff Relations
Information Exchange/ Issues	New Staff Orientation Mentally Retarded Offender/Victim Camping Programs Model Infant Stimulation Program P.L. 94-142, Educational Rights Advocacy, Legal Rights
Human Growth and Development	Genetic Counseling Sensory Stimulation Assessment Spiritual Needs Seizures and Medication
Treatment/Training Techniques	Music Methods Recreational Activities Practical Work Activities Management of Diabetic, Mentally Retarded Person Counseling Mentally Retarded Person Swimming and Skating Improving Speech Student Confrontation Avoidance Technique Relaxation Therapy Techniques Puppetry
Other Topics	Role of a Secretary Proofreading Skills

Table 7
Minimum Hours of Nonformal Training in General Content Areas as Provided by the Selected Sample Training Providers (Fiscal Year 1981)

	MINIMUM HOURS OF TRAINING PROVIDED IN GENERAL CONTENT AREAS					
TRAINING PROVIDERS	Administration/ Management	Information Exchange/ Issues	Human Growth and Development	Treatment/ Training Techniques	Other	Total
State Agencies (N = 4)	296	330	368	404	393	1,791
Professional Organizations (N = 8)	151	117	100	189	26	583
Community Residential Service Providers (N = 3)	42	89	77	83	0	291
Continuing Education (N = 4)	283	160	364	291	16	1,114
TOTAL (N = 19)	772	696	909	967	435	3,779

NOTE: Minimum number of hours represents a base number of hours of training made available, e.g., some courses or workshops may have been presented more than once and in various locations but were not reported in total hours.

Table 8
Frequency of Training Topics by Training Providers
(Fiscal Year 1981)

	HOURS OF TRAINING PROVIDED BY TRAINING PROVIDERS				
GENERAL CONTENT AREA	State Agencies (N = 4)	Professional Organizations (N = 8)	Community Residential Service Providers (N = 3)	Continuing Education (N = 4)	Total (N = 19)
Administration/Management:					
• Computer Technology	46	8	0	0	54
• Time Management	10	23	4	8	45
• Staff Burnout/Job Stress	0	16	4	16	36
Information Exchange/Issues:					
• Assertiveness Training (staff)	12	9	2	24	47
• Abuse/Neglect (child and vulnerable adult)	20	18	0	0	38
• Legal Rights/Advocacy	0	10	3	16	19
• Aversive Treatment (DPW Rule 39)	0	3	0	16	19
Human Growth and Development:					
• Communication Disorders	46	23	0	24	93
• Human Sexuality	38	10	0	32	80
• Early Childhood Development	52	26	0	0	78
• MR/MI and Mental Health	8	2	2	8	20
Treatment Techniques:					
• Behavior Management and Behavior Problems	32	140	29	64	265
• Least Restrictive Programming	0	21	4	0	25
• Relaxation Therapy	1	4	0	0	5

Table 9
Frequency of Training Topics by Training Providers (Fiscal Year 1982)[a]

	HOURS OF TRAINING PROVIDED BY TRAINING PROVIDERS				
GENERAL CONTENT AREA	State Agencies (N = 4)	Professional Organizations (N = 8)	Community Residential Service Providers (N = 3)	Continuing Education (N = 4)	Total (N = 19)
Administration/Management:					
• Cut Back Management	0	22	0	16	38
• Person/Professional Growth	8	15	0	8	31
• Assertiveness Training	8	0	8	0	16
• Computer Technology	8	5	0	0	13
• Staff Burnout/Job Stress	8	0	0	0	8
• Leadership Management	0	7	0	0	7
Information Exchange/Issues:					
• MR/MI and Mental Health	12	5	0	16	33
• Laws and Regulations	9	4	0	0	13
• Aversive Treatment (DPW Rule 39)	0	12	0	0	12
• Abuse/Neglect (child and vulnerable adult)	0	0	0	8	8
• Legal Rights, Advocacy and Ethical Issues	0	0	2	4	6
Human Growth and Development:					
• Communication Disorders	0	13	0	0	13
• Human Relations/Communication	0	12	0	0	12
• Early Childhood	0	9	0	0	9
• Human Sexuality	0	7	0	0	7
• Self-Concept	0	4	0	2	6
Treatment Techniques:					
• Behavior Management and Behavior Problems	6	57	0	0	63

[a] Based on partial data available.

Table 10
Comparison between Number of Hours of Nonformal Training Relating to Behavior Management and/or Behavior Problems and Total Training Hours Provided by the Selected Agencies/Organizations
(Fiscal Year 1981)

Training Providers	Total Training Hours Provided	Number of Hours/ Behavior Management	Percent
State Agencies (N = 4)	1,791	32	2
Professional Organizations (N = 8)	583	140	24
Community Residential Service Providers (N = 3)	291	29	9
Continuing Education (N = 4)	1,114	64	6

dual diagnosis of mental retardation with mental illness, communication disorders, and relaxation therapy.

I. Coordination Needs and Barriers

In response to the question of what barriers exist that prevent better coordination of training efforts between agencies and organizations, the respondents indicated that such barriers were either financial or organizational (bureaucratic):[1]

Financial Barriers:

- "competition for funds among the various agencies or organizations."
- "money and resources." (2 responses)
- "money flows from diverse channels."
- "geographic distances, especially in Northern Minnesota. It's too expensive to transport and house staff into the Metro Area, where many of the training opportunities occur."
- "many administrators don't see training as a good investment."

---

[1] Each of the responses occurred once except where noted in parentheses.

Organizational/Bureaucratic Barriers:

- "different philosophies among the various organizations."
- "there is a natural tendency to 'do our own thing.'"
- "turf/territorial protection." (5 responses)
- "specialized interests, every organization has own needs."
- "fear of losing agency/organization identity."
- "lack of communication, poor dissemination of information." (4 responses)
- "awareness and time."
- "heterogeneity of audiences and their specialized needs (e.g., the recent legislative changes regarding certification requirements for school nurses and for early childhood educators by 1982 and 1985, respectively.)"
- "narrow eligibility criteria in federal programs, e.g., Title XX."

J. Suggestions for Future Training Efforts

The key informants were asked to list what topics or concerns they had regarding future training needs. Their comments, as arranged after classification, were as follows:[1]

Administration/Management:

- "cost effectiveness, cost containment, cutback management." (4 responses)
- "addressing the needs of the local community--a process of discovering and utilizing/modifying local resources."
- "funding--who's going to pay for services?"
- "licensing."
- "management techniques/skills." (2 responses)
- "how to relate to the business community."
- "work activity programs."

Emerging Issues and/or Need for More Information Dissemination:

- "handicapped awareness, human rights, and advocacy." (5 responses)
- "status of services to physically handicapped (e.g., Minnesota is serving only 20%, educationally)."
- "status of state and federal law (and regulations), especially in the area of special education."
- "legal issues." (2 responses)
- "Vulnerable Adult Protection Act and the protection of staff."

---

[1] Each of the responses occurred once except where noted in parentheses.

Treatment Techniques:

- "least restrictive programming."
- "behavior management technology." (2 responses)
- "behavior problems."

Methods of Training:

- "there is a great need to teach/refresh presenters in presentation skills."
- "paraprofessional training is not well-developed yet."
- "technical information should be made available on short notice, almost like custom designed programs for small groups."
- "there is a need to develop 'canned orientation presentations' on audio-visual media (e.g., introduction to mental retardation, behavior management techniques), which are inexpensive, easy to use and can be self-taught."

V. DISCUSSION

This study was an attempt to document and describe nonformal training activities for personnel working in the field of developmental disabilities in Minnesota. Nonformal training, in essence, was defined as adult education experiences that take place outside of the formal education sector, e.g., conferences, workshops, seminars, in-service training, or courses.

On a positive scale, this study did document that people, generally, are motivated to continue their education throughout their adult lives. Although this study could not document the exact numbers because accurate counts were not usually collected, it is evident that literally thousands of people regularly participate in hundreds of training events taking place throughout the state each year, just in the specialized area of developmental disabilities alone.

Yet, while millions of dollars are invested in nonformal training activities, there are few tangible results: (a) most nonformal training events are not designed to meet individual needs and competencies desired; (b) methods of evaluating training do not measure what learning has occurred, or whether or not new knowledge brought about change in work performance; (c) most nonformal training activities do not offer continuing education credits, and where credits are given, they cannot be applied toward career advancement because there are few career ladders provided.

Among the 19 agencies and organizations contacted in the survey, all agreed that there was a need for coordination/collaboration in the area of training. Their responses to the last question in the survey, "How might training efforts be better coordinated in Minnesota?" serve not only as summary of stated needs but also provide some concrete ideas for immediate steps that could be taken. Comments by the respondents as to how training efforts might be better coordinated in Minnesota reflected three general areas for improvement: (1) communications/sharing of information, (2) training methods, and (3) interagency coordination. Their suggestions are listed below:[1]

Communication/Information Sharing:

- "hold interagency/organizational meetings for leaders to share information." (3 responses)
- "provide a clearinghouse for dates of events, topics, and for the dissemination of information." (3 responses)
- "in an information clearinghouse, have information regarding higher education/continuing education opportunities by location."
- "distribute detailed outlines of subjects in seminars, workshops, and conferences in advance." (2 responses)
- "catalogue/list available speakers, educational and training resources."
- "compile evaluations of past training events and audience focus."
- "make better use of computer and word processing technology."
- "there is a need for a central, current mailing list--who to send information to." (2 responses)

Coordination of Training Methods:

- "more use of video taped lectures."
- "match specific needs with variety of facility types and level of staff."
- "coordinate higher education around development incentives."
- "on-the-job observation, evaluation, and training is needed."
- "encourage multi-disciplinary interaction and learning opportunities."
- "provide central office that would conduct training needs assessments, staff evaluation, and provide technical assistance."

Other Training Resources in Minnesota Worth Noting

It was a common experience by the investigators in this study to frequently discover training resources that were already in place or were in early stages of development. Such resources may be helpful in future efforts to coordinate and develop comprehensive training programs in Minnesota. Such resources would include:

---

[1] Each of the responses occurred once except where noted in parentheses.

ASSET Training Project. The acronym "ASSET" refers to Adjusting Service Systems to Evolving Therapies. This cooperative program between the Minnesota Learning Center (Brainerd), the St. Cloud State University, and Mankato State University is a computer-assisted format for testing and training of people in the use of aversive treatment techniques.

Center for Early Education and Development (CEED), University of Minnesota. This center has been highly successful in sponsoring an annual Minnesota Round Table in Early Education, with emphasis on interdisciplinary discussions about applying research knowledge to practice.

Central Conference of University Training Programs in Developmental Disabilities. This has been primarily a media exchange effort using videotape and telephone conference call discussions among 14 University Affiliated Facilities in the Upper Midwest. The Central Conference Agency in Minnesota has been the Child Development Section, St. Paul-Ramsey Medical Center/University of Minnesota.

Government Training Service. Established under the joint powers authority, this is a public organization representing the cooperative efforts of seven governmental units and instrumentalities. Management, training, and consultation are offered to public employees, officials, and employers in the state of Minnesota. This agency is currently under contract with the Department of Energy, Planning and Development to conduct the Developmental Disabilities Training Project, under a grant from the McKnight Foundation.

Internal Task Force on Inservice and Preservice Training. The Minnesota Department of Education provides this guidance.

Joint Liaison Committee. Operating out of the Division of Vocational Rehabilitation, Department of Economic Security, this committee has served as the communication link between several state agencies and professional trainers in the field of rehabilitation since 1969.

Minnesota Association for Severely Handicapped (MNASH). This group was formed in October, 1981, and has been in the process of affiliating with the national organization, The Association for Severely Handicapped (TASH).

Minnesota Training Consortium. From an office in the Range Center in Chisholm, this newly formed group will be attempting to coordinate training efforts and resources for personnel working in the field of developmental disabilities.

Southern Minnesota Chapter of American Society for Training and Development (ASTD). This is a national professional society of more than 15,000 persons responsible for the training and development of today's work force. These individuals design and administer training and management programs in business, industry, education, government, and service organizations.

The above listing is not exhaustive and apologies are offered to others who may have been unintentionally omitted.

V. REFERENCES

Apolloni, T., Cappuccilli, J., & Cooke, T. P. (Eds.). Achievements in residential services for persons with disabilities; toward excellence. Baltimore: University Park Press, 1980.

Benson, F. A. M., Hitzing, W., & Kozlowski, R. (Eds.). Linking service and training systems in the 1980's; report on a conference on service systems and manpower issues. Columbus, Ohio: The Ohio State University, December 9-10, 1980.

Bergevin, P., Morris, D., & Smith, R. Adult education procedures; a handbook of tested patterns for effective participation. New York: Seabury Press, 1963.

Bilovsky, D. & Matson, J. Community colleges and the developmentally disabled; training models for direct care personnel. Washington, DC: American Association of Community and Junior Colleges, 1977.

Bruininks, R. H., Hauber, F. A., & Kudla, M. J. National survey of community residential facilities: A profile of facilities and residents in 1977. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1979.

Bruininks, R. H., Kudla, M., Wieck, C., & Hauber, F. Management problems in community residential facilities. Mental Retardation, 1980, 18(3), 125-130.

Elder, J. O. & Magrab, P. R. (Eds.). Coordinating services to handicapped children; a handbook for interagency collaboration. Baltimore: Paul H. Brooks, 1980.

Elder, J. O. & Magrab, P. R. (Eds.). Planning for services to handicapped persons; community, education, health. Baltimore: Paul H. Brooks, 1979.

Faison, K. Working plan for coordinated training services for direct-service staff in community based programs for developmentally disabled persons in Nebraska. Omaha, Nebraska: The University of Nebraska, 1979.

Fiorelli, J. S. (Ed.). A curricular model for preservice training of alternative living arrangement direct service personnel. Philadelphia, Pennsylvania: Temple University, October, 1979.

Fiorelli, J. S., Heverly, M. A., & Conroy, J. W. Manpower issues in community-based alternative living arrangements: Reflections on a statewide inventory in Pennsylvania. Philadelphia, Pennsylvania: Temply University, 1979.

Fiorelli, J. S., Margolis, H., Heverly, M. A., Keating, D. J., & Green, D. Developing a comprehensive training program for direct service personnel providing community based residential services to developmentally disabled persons. Philadelphia, Pennsylvania: Temple University, 1979.

Freiberg, H. J. & Houston, W. R. Perpetual motion, blindman's bluff, and inservice education. Journal of Teacher Education, 1979, XXX(1), 7-9.

George, M. J. A statewide study of employee turnover in community residential facilities for developmentally disabled persons (unpublished doctoral dissertation, George Peabody College for Teachers), 1980.

Handley, E. E. & Murphy, C. Funding for training: A survey of resources to financially support staff development programs for developmental disabilities personnel. Ann Arbor, Michigan: Michigan University, 1978.

Jones, W. E. Communitization: An alternative approach to social and service reform. New York: National Education Center for Paraprofessionals in Mental Health, April, 1979.

Kelly, P. & Harlicek, L. A statewide network for training special education paraprofessionals. Exceptional Children, April, 1982, 48(6), 535-536.

Kidd, J. R. How adults learn. New York: Association Press, 1973.

Knowles, M. S. The modern practice of adult education; from pedagogy to andragogy. Chicago: Association Press, 1980.

Koplik, K. A survey of cooperative education programs between institutions of higher education and residential facilities for the mentally retarded. Education on Training of the Mentally Retarded, December, 1976, 11(4), 347-351.

Lakin, K. C. & Bruininks, R. H. Occupational stability of direct-care staff of residential facilities for mentally retarded people. Minneapolis: Department of Psychoeducational Studies, University of Minnesota, 1981.

Leismer, J. Experiences of Macomb-Oakland Regional Center, Michigan. Presentation at symposium of Minnesota Developmental Disabilities Program. St. Paul, July 30-31, 1981.

Leismer, J. *Prevention of institutional admissions and returns: Especially those due to client behavioral difficulties* (unpublished paper), July 29, 1981.

Linton, T. E. *Towards a national mental retardation manpower model for Canada*. Chicago: Illinois University, 1971.

Massachusetts State Manpower Services Council. *Department of mental health on-the-job training project*. Boston: Department of Manpower Development, 1978.

Minnesota Developmental Disabilities Program Office. *CAIR: Community alternatives and institutional reform, planning alternatives for the developmentally disabled individuals*. St. Paul: Minnesota State Planning Agency, 1975.

Minnesota Developmental Disabilities Program Office. *Policy analysis paper no. 10: Admissions/readmissions to state hospitals--the behavior problem issue*. St. Paul: Department of Energy, Planning and Development, April, 1982.

Moore, E. The education of the paraprofessional. *Education and Training of the Mentally Retarded*, October, 1977, 296-303.

National Commission for Human Service Workers. *Registration and certification of human service workers*. Atlanta, Georgia: Author, 1982.

National Institute on Mental Retardation. *National mental retardation training model*. Ontario, Canada: Author, 1972.

Nebraska Mental Retardation Panel. *A statewide manpower model; report of the task force on manpower development*. Omaha, Nebraska: Office of Mental Retardation, 1979.

New Careers Training Laboratory. *Career ladders and a training model for the (re)training of direct service workers in community based programs for the developmentally disabled*. New York: City University of New York, 1979.

New Careers Training Laboratory. *The utilization and training of paraprofessionals in special education: Present status and future prospect*. New York: City University of New York, 1974.

New Mexico University. *A consumer's guide to personnel preparation programs: The training of paraprofessionals in special education and related fields*. Albuquerque: Author, 1977.

Nisonger Center. *Linking service and training systems in the 1980s*. Columbus: Ohio State University, 1981.

Pfriem, D. C. *A survey of inservice training needs*. Minneapolis: REM, Inc., September, 1978.

Pfriem, D. C. *Description of duties: Local coordinator for inservice activities*. Minneapolis: REM, Inc., 1979.

Pfriem, D. C. *Inservice training: A followup survey*. Minneapolis: REM, Inc., August, 1979.

Pfriem, D. C. *Tinker-to-evers but no chance; staff training as a cooperative effort*. Minneapolis: REM, Inc., May, 1980.

Pfriem, D. C. *Tinkering with evers' chances; the effects of facility-sponsored career development intervention*. Paper presented at the annual meeting of the American Association on Mental Deficiency. Detroit, May, 1981.

Pickett, A. L. Roles of paraprofessionals in schools. *Education Unlimited*, February, 1980, 6-7.

Pickett, A. L. *The training of paraprofessionals in special education: Results of a survey of institutions of higher education and descriptions of training programs*. New York: City University of New York, 1977.

Pickett, A. L. *The utilization and training of paraprofessionals in special education: Results of a survey of state directors of special education and descriptions of training programs*. New York: City University of New York, 1977.

Ramseyer, G. I. *Perceived roles of paraprofessionals in special education settings* (unpublished doctoral dissertation), University of Michigan, 1980.

Task Force on Manpower Development of the Nebraska Mental Retardation Panel. *A statewide manpower model; report of the task force on manpower development of the Nebraska Mental Retardation Panel*. Lincoln, Nebraska: Nebraska Mental Retardation Panel, January 16, 1979.

Texas Department of Mental Health and Mental Retardation. *Task inventory for direct care paraprofessionals in Texas Department of Mental Health and Mental Retardation, state hospitals, state schools and community centers*. Austin, Texas: Author (Circa 1980).

U.S. Department of Health, Education & Welfare, Region V. *Conference proceedings: Skills assessment, training and evaluation of personnel serving developmentally disabled individuals*. Ann Arbor: Michigan University, June 23-29, 1979.

Welsch V. Noot, 4-72 Civil 451 (D. Minn., Sept. 15, 1980).

White, R. (Ed.). *Mental health technician training; staff developers manual*. Indianapolis: Indiana University Developmental Training Center (Circa 1980).

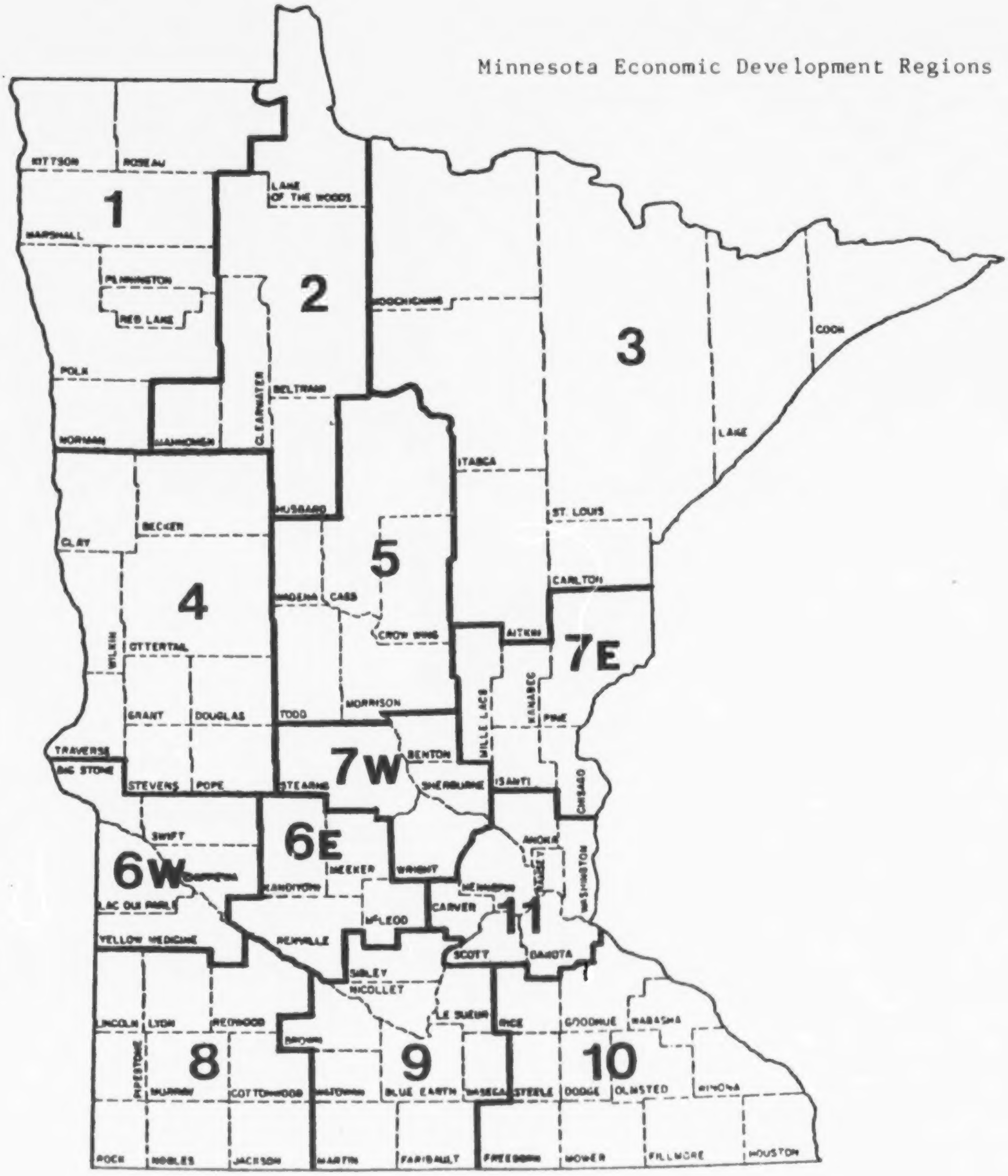
Wray, L. D. Social, political, and cultural challenges to behavioral programs in the community. In G. L. Martin & J. G. Osborne (Eds.), Helping in the Community: Behavioral Applications. New York: Plenum, 1980.

Zaharia, E. S. & Baumeister, A. A. Estimated position replacement costs for technician personnel in a state's public facilities. Mental Retardation, 1978, 16, 131-134.

Ziarnik, J. Training staff in community-based facilities; a comprehensive model and its implementation (unpublished manuscript), University of South Dakota (Circa 1980).

Ziarnik, J., Mauldin, J. E., & Rudrud, E. H. A philosophical foundation for staff training and its implications for service delivery; the proactive/reactive concept (unpublished manuscript), University of South Dakota (Circa 1980).

Minnesota Economic Development Regions


KITTSON
ROSEAU
LAKE OF THE WOODS
1
MARSHALL
PENNINGTON
RED LAKE
2
KOOCHICHING
COOK
3
POLK
BELTRAMI
CLEARWATER
NORMAN
MAHNOMEN
LAKE
ITASCA
HUBBARD
ST. LOUIS
CLAY
BECKER
5
CARLTON
4
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
7E
KANABEC
MILLE LACS
GRANT
DOUGLAS
TODD
MORRISON
PINE
TRAVERSE
BIG STONE
BENTON
7W
STEVENS
POPE
STEARNS
SHERBURNE
ISANTI
CHISAGO
SWIFT
6E
ANOKA
6W
CHIPPEWA
MEEKER
WRIGHT
RAMSEY
WASHINGTON
KANDIYOHI
HENNEPIN
LAC QUI PARLE
McLEOD
CARVER
11
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
LINCOLN
LYON
REDWOOD
RICE
GOODHUE
WABASHA
BROWN
PIPESTONE
8
9
10
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 13

A SURVEY OF FORMAL TRAINING PROGRAMS IN DEVELOPMENTAL DISABILITIES IN POSTSECONDARY SCHOOLS IN MINNESOTA AND ADJACENT STATES

I. INTRODUCTION

The training and supervision of developmentally disabled individuals requires a staff of persons who have a unique combination of skills. Staff members need to combine strong interpersonal communication skills and an understanding of the causes of developmental disabilities with the latest methods and technology of teaching clients. This paper investigates the availability of training from the postsecondary institutions which have traditionally provided preservice training for professionals and paraprofessionals working with developmentally disabled people. An assessment of personnel and training programs is mandated by the 1978 Developmental Disabilities Assistance and Bill of Rights Act (P.L. 95-602) which states:

> The (state) plan (for developmental disabilities) must provide for . . . an assessment of the adequacy of the skill level of professionals and paraprofessionals serving persons with developmental disabilities in the state and the adequacy of the state programs and plans supporting training of such professionals and paraprofessionals in maintaining the quality of services provided to persons with developmental disabilities in the state . . . (42 USC 6009).

This policy analysis paper is the second in a series of three reports on the current status of training opportunities for paraprofessionals and professionals working with the developmentally disabled, and the training needs of these individuals.

The first paper (*Policy Analysis Paper No. 12*) focused on nonformal training. This paper will report the results of a survey of formal training programs in postsecondary institutions. The third paper (*Policy Analysis Paper No. 14*) will present the findings of a study of the perceived training needs of administrators and line staff in community residential facilities and developmental achievement centers.

II. REVIEW OF LITERATURE

The quality of care provided to the most severely handicapped population is partially a function of the formal training programs provided by institutions of higher education. Perske and Smith (1977) made five observations:

- The supply of competent professionals is much smaller than the current demand.
- Although training institutions are beginning to produce personnel to work with severely handicapped people, many training programs are themselves in the process of evolving.
- Programs run the risk of becoming hollow in content, lacking in systematic procedures, and ultimately unproductive if trainees are hired who are not completely competent.
- Personnel must possess the skills necessary to ensure that severely and profoundly handicapped individuals reach their full educational potential and that their progress is documented.
- The highest standards must be maintained for institutions of higher education and those who are trained in them in order to prevent a loss of faith in the educational enterprise of serving the most severely handicapped clients.

Many facilities for developmentally disabled persons have primarily emphasized the staff's skills in personally interacting with clients and reinforcing client learning.

The ability to enhance an individual's self-worth is a unique personality trait and a difficult one to learn in a scholastic setting. Tjosvold and Tjosvold (1981) wrote, "A person can learn skills and maturity through experience that cannot be learned otherwise" (p. 147). They described the required skills as the ability "to analyze situations, and determine the discrepancy between the actual and the desired state of affairs. Once the problem is identified, they must generate solutions and devise activities and experiences so that the actual approaches the desired" (p. 5).

As the field of developmental disabilities receives more attention and clients are provided with the opportunity to become more involved in the community, a concerned and committed staff may not be sufficient. It is also critical that staff members possess a basic body of knowledge concerning the causes and effects of disabilities and the training and motivation of clients. This body of knowledge has been greatly expanded by recently published information; a knowledge base that was considered adequate a decade ago may not currently provide staff with skills they need to be effective. It is likely that this body of knowledge will continue to expand in the future.

Formal training programs must be charged with several responsibilities including:

> a network of collaborative interfaces and relationships, judicious recruitment of trainees, the development and implementation of a well-rounded, competency-based curriculum, and continuing responsibility to the practitioner in the field. (Perske & Smith, 1977, p. iii)

Provision of services in any human service field depends upon the local agencies' resources (input), the coordination of these resources (throughput), and the effective delivery of services to the clients (output). Miringoff (1980) defined the basic input resources as either maintenance or service. Maintenance resources are those essential items that provide the structure within which the services are provided, e.g., building, equipment, managerial, and support staff. Service resources are "derived from the existence and availability of a specific type of expertise designed to alleviate the given social problem with which the organization deals" (p. 19).

In the developmental disabilities field, as in other human service fields, the literature reflects an awareness of the distinction between the "state of the art" technology and the possession of that knowledge by individual practitioners in the field. Individual expertise is the combination of experiential and academic knowledge that has been acquired over time.

Nationally, professional course work at postsecondary educational institutions usually includes the causes and origins of developmental disabilities; the effects of the social environment in causing cultural familial retardation (Ziegler, 1978); testing and assessment; the effects of mental retardation on specific perceptual skills such as visual tracking (Thorson & Lipscomb, 1982); methods for teaching tasks to improve skills such as spelling (Neef, 1980) and work skills (Gold, 1982); Bellamy, 1979); and recreation and leisure (Wehman, 1980); the methods of generalizing skills to future situations and problems (Adkins, 1980; Curo, 1980; Fox, 1980; & Weisz, 1981); behavior management approaches (Watson, 1978; Sulzer-Azroff & Mayer, 1977; Martin & Pear, 1978; Morrel, 1979; Ferrara, 1979; Kastner, 1979); methods for teaching sexuality education (Fischer, 1973; Kempton, Bass, & Gordon, 1973; & Perske, 1973).

At a paraprofessional level, the topics of study are similar. Programs generally include introductory courses on disabilities and direct field experiences.

III. METHODOLOGY

The methodology of this paper consisted of a survey of the formal training programs in postsecondary schools for persons who work with developmentally disabled individuals. The primary geographic focus of the survey was the state of Minnesota. The survey covered all postsecondary training and educational institutions in the state, including a total of 89 schools: 33 area vocational technical institutes (AVTIs), 19 community colleges (CC), 8 Bible colleges, and 29 four-year colleges and universities. In addition, 8 selected institutions in three neighboring states (Wisconsin, North Dakota, and South Dakota) were included on the basis of their proximity to Minnesota. (See Table 1 for a complete listing of the educational institutions included in the survey.) Course bulletins from these institutions were examined for credit courses with content in developmental disabilities. Content was broadly defined as the inclusion of some information on developmental disabilities which would be useful to individuals training to work with developmentally disabled persons as paraprofessionals or professionals. The programs examined included those in educational, social service, and health related fields. The review was compiled during two periods. First, there was a complete analysis during summer, 1981. This was followed in summer, 1982, by a brief survey designed to update and reveal major changes in the more active programs.

It was beyond the scope of this paper to examine the quality or quantity of the material presented in these classes. Further, there was no attempt to evaluate the effectiveness of the instructors or the teaching materials. For the purposes of this study, all courses are included regardless of comparability of content.

Table 1
Minnesota Postsecondary Education Institutions by Regions

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
One	Northland Community College	East Grand Forks Area Vocational Technical Institute Thief River Falls Area Vocational Technical Institute University of Minnesota--Crookston
Two	Bemidji State University	Bemidji Area Vocational Technical Institute
Three	Hibbing Community College Duluth Area Vocational Technical Institute Itasca Community College Vermilion Community College St. Scholastica University of Minnesota--Duluth	Eveleth Area Vocational Technical Institute Hibbing Area Vocational Technical Institute Mesabi Community College Rainy River Community College
Four	Fergus Falls Community College Concordia, Moorhead Moorhead State University University of Minnesota--Morris	Detroit Lakes Area Vocational Technical Institute Moorhead Area Vocational Technical Institute Alexandria Area Vocational Technical Institute
Five	Brainerd Community College	Brainerd Area Vocational Technical Institute Staples Area Vocational Technical Institute Wadena Area Vocational Technical Institute
Six	Hutchinson Area Vocational Technical Institute Willmar Area Vocational Technical Institute Willmar Community College	Canby Area Vocational Technical Institute Granite Falls Area Vocational Technical Institute
Seven	St. Cloud Area Vocational Technical Institute St. Benedict College St. John's College St. Cloud State University	Pine Area Vocational Technical Institute

Table 1 (Continued)

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
Eight	Worthington Community College Southwest State University	Jackson Area Vocational Technical Institute Pipestone Area Vocational Technical Institute
Nine	Mankato Area Vocational Technical Institute Gustavus Adolphus College Mankato State University University of Minnesota--Waseca	Bethany Lutheran College Dr. Martin Luther King College
Ten	Rochester Area Vocational Technical Institute Austin Community College Rochester Community College Carleton College St. Mary's, Winona St. Olaf College St. Teresa College Winona State University Pillsbury Baptist College	Albert Lea Area Vocational Technical Institute Austin Area Vocational Technical Institute Faribault Area Vocational Technical Institute Winona Area Vocational Technical Institute Red Wing Area Vocational Technical Institute
Eleven	Anoka Area Vocational Technical Institute Hennepin Technical Centers Minneapolis Technical Institute 916 Area Vocational Technical Institute St. Paul Area Vocational Technical Institute Anoka-Ramsey Community College Inver Hills Community College Lakewood Community College Minneapolis Community College St. Mary's Junior College Augsburg College Bethel College Concordia, St. Paul Hamline University Macalester College College of St. Catherine College of St. Thomas Metropolitan State University	Dakota County Area Vocational Technical Institute Normandale Community College North Hennepin Community College Minneapolis College of Art and Design Golden Valley Lutheran College

Table 1 (Continued)

Region	Programs with Developmental Disabilities Content	Programs without Developmental Disabilities Content
Eleven (Cont.)	University of Minnesota--Minneapolis North Central Bible College Northwestern College St. Paul Bible College	
Wisconsin	University of Wisconsin--Eau Claire University of Wisconsin--LaCrosse University of Wisconsin--Stout University of Wisconsin--River Falls University of Wisconsin--Superior	
North Dakota	North Dakota State University, Fargo University of North Dakota, Grand Forks	
South Dakota	South Dakota State University, Brookings	

IV. RESULTS

This section will include: (1) an overview of the statewide and retional distribution of educational institutions with developmental disabilities coursework; (2) an analysis of trends in the amount and type of developmental disabilities coursework offered; and (3) an analysis of the relationship between the availability of four-year college and university programs in a region and the employment of degreed staff members in developmental achievement centers (DACs) in that region.

A. Statewide and Regional Distribution of Educational Institutions Developmental Disabilities Coursework

In 57 of the 89 (64%) Minnesota postsecondary institutions included in this survey, there are courses on developmental disabilities or courses that include content on developmental disabilities.

Every region in the state has an institution that provides some coursework with developmental disabilities content (see Table 1).

Three regions in north and northcentral Minnesota (Regions One, Two, and Five) have only one school available for persons interested in developmental disabilities courses. Other regions (excluding metropolitan areas) have between two and four educational institutions (Regions Four, Six, Seven, Eight, and Nine) with such coursework. The two regions that are subdivided (Regions Six and Seven) have all of the programs in one subdivision (Six E and Seven W) and none in the other sections (Six W and Seven E).

The majority of the institutions with developmental disabilities courses are located in the large urban areas (Table 2). Thirty-nine percent (N = 22) of the institutions are in Region Eleven, which encompasses the Twin Cities. The southeastern corner of the state, Region Ten, including Rochester, has nine (16% of the total). The northeastern section, Region Three, including Duluth, has six programs (11%). These three geographical areas have 37 of the 57 (65%) educational facilities with developmental disabilities courses in the state.

Table 2
Educational Institutions with Developmental Disabilities Course Content
(Minnesota Training Institutions, 1982; 100% Reporting)

Region	AVTI	Bible Colleges	Community Colleges[a]	Four-Year Colleges	Total
One	0	0	1	0	1
Two	0	0	0	1	1
Three	1	0	3	2	6
Four	0	0	1	3	4
Five	0	0	1	0	1
Six	2	0	1	0	3[b]
Seven	1	0	0	3[c]	4[d]
Eight	0	0	1	1	2
Nine	1	0	0	2	4
Ten	1	1	2	5	9
Eleven	5	3	5	9[e]	22
STATE TOTAL	11	4	15	27	57

[a] Includes St. Mary's Junior College and University of Minnesota, Waseca.

[b] All programs are located in Region Six E.

[c] St. Benedict's and St. John's universities are recorded individually.

[d] All programs are located in Region Seven W.

[e] St. Catherine's and St. Thomas universities are recorded individually.

All eight of the educational institutions located in neighboring states which were included in the survey offer coursework with developmental disabilities content. Five of these institutions are part of the University of Wisconsin system. Two of these (Eau Claire and Stout) border Region Eleven, two border Region Ten (LaCrosse and River Falls), and one is across from Region Three (Superior). North Dakota's two schools near the Minnesota are adjacent to Region One (Grand Forks) and Region Four (Fargo); South Dakota's (Brookings) is across from Region Eight.

B. Trends in the Amount and Type of Developmental Disabilities Coursework Offered

The developmental disabilities coursework offered in Minnesota's postsecondary educational institutions ranges from a section of a single course which addresses some aspect of developmental disabilities to several graduate level programs focused entirely on training professionals to work in the developmental disabilities field. This survey found coursework with developmental disabilities content in a broad range of academic disciplines, including education, special education, vocational education, health education, physical education and recreation, social work, psychology, public health, home economics, and therapy (art, music, physical, occupational, and speech), as well as in training programs for paraprofessionals in various human service fields.

While the number of educational institutions which offer some coursework with developmental disabilities content is impressive, this number must be treated with caution. The distribution of formal training resources for paraprofessionals and professionals in the developmental disabilities field reflects in many ways the overall distribution of educational resources in the state. Many of the institutions listed as offering coursework offer a very small number of courses; the vast majority of developmental disabilities coursework is concentrated in a relatively small number of educational institutions, including the University of Minnesota (Twin Cities and Duluth campuses), five state universities (Bemidji, Mankato, Moorhead, St. Cloud, and Winona), and a few private, four-year liberal arts colleges (St. Teresa and St. Scholastica). (See Table 3 for a listing of degree programs in developmental disability related fields).

Some general observations can be made about the amount and type of developmental disabilities coursework offered by each category of educational institutions. Courses on developmental disabilities or programs for this training are more likely to be found in schools with a liberal arts program. Of the 27 four-year colleges and universities, 26 (96%) provide developmental disabilities training. The Minneapolis College of Art and Design is the only school in this category not offering developmental disabilities course content. The majority, 16 of the 21 two-year colleges (76%), provide developmental disabilities training opportunities. Half of the Bible colleges (4 of 8) offer such courses, and only one-third (11 of 33) of the area vocational technical institute programs offer developmental disabilities coursework.

The majority of area vocational technical institutes (AVTIs) offer only one program with such coursework. Most frequently, this program is a child development assistant program; a few AVTIs offer human services technician and occupational therapy assistant programs. Most of these AVTI programs take approximately 9 to 10 months to complete. In a few cases, the program sequence consists of attendance at the AVTI followed by program completion at a cooperating community college.

About half (7 of 16) of the two-year colleges with developmental disabilities coursework offer only one program with such content; the remainder offer two or three programs. The largest number of two-year college programs are for child development assistants, educational aides, and human service technicians. A few two-year colleges offer training programs for assistants in therapeutic recreation, occupational therapy, and physical therapy.

The Bible colleges which offer developmental disabilities coursework have a few courses which cover teaching techniques for mentally retarded or hearing impaired individuals.

Of the 16 private, four-year colleges with developmental disabilities coursework, 5 offer only one or two courses, and an additional 6 offer six or less courses. Relatively few private colleges offer bachelor's degrees in developmental disabilities related fields. Several of these colleges do offer developmental disabilities content as an area of specialization within a more general major; for example, special education will be a focus for an elementary education major, or adapted physical education for a physical education major.

Private, four-year colleges with developmental disabilities courses are most likely to offer them in special education, adapted physical education and recreation, therapy, and psychology. Ten colleges in this category offer special education courses; Concordia--St. Paul, St. Mary's--Winona, and St. Teresa's offer bachelor's degrees with special education concentrations. Seven colleges offer adapted physical education/recreation courses; at Augsburg, areas of specialization in a physical education major are adapted physical education (P.E.) and corrective therapy. Six colleges offer coursework in speech therapy. St. Teresa's has a B.A. degree program in speech therapy, and majors with therapy emphasis in art, music, and dance. St. Catherine and St. Thomas offer B.A. degrees in occupational therapy, and St. Scholastica in physical therapy. Seven colleges offer coursework on mental retardation through their psychology departments. Five private colleges also have general coursework on disabilities in their home economics departments.

Table 3
Degree Programs in Developmental Disability Related Fields by Region

Region	Associate of Arts (A.A.) Degree[a]	Bachelor of Arts/Science (B.A./B.S.) Degree[b]	Graduate Degree (M.A., M.S., M.Ed., Ph.D.)[c]
One	Northland Community College		
Two		Bemidji State University	Bemidji State University
Three	Hibbing Community College Vermillion Community College	St. Scholastica University of Minnesota, Duluth	University of Minnesota, Duluth
Four		Moorhead State University	Moorhead State University
Five	Brainerd Community College		
Six	Willmar Community College		
Seven		St. Benedict St. John's St. Cloud State University	St. Cloud State University
Eight	Worthington Community College	Southwest State University	
Nine	University of Minnesota, Waseca	Mankato State University	Mankato State University
Ten	Austin Community College Rochester Community College	St. Mary's, Winona St. Teresa's Winona State University	Winona State University

Table 3 (Continued)

Region	Associate of Arts (A.A.) Degree[a]	Bachelor of Arts/Science (B.A./B.S.) Degree[b]	Graduate Degree (M.A., M.S., M.Ed., Ph.D.)[c]
Eleven	Anoka-Ramsey Community College Inver Hills Community College Lakewood Community College Minneapolis Community College St. Mary's Junior College University of Minnesota, Twin Cities (general college)	Augsburg Concordia, St. Paul St. Catherine's St. Thomas University of Minnesota, Twin Cities	University of Minnesota, Twin Cities

[a] Includes degree programs for child development assistants, educational aides, human services technicians, occupational therapy assistants, and therapeutic recreation assistants.

[b] Includes degree programs, areas of specialization within degree programs, and licensure programs for special education; physical, occupational, art, music, dance, and speech therapy; adapted physical education and/or recreation; and vocational rehabilitation.

[c] Includes degree programs, areas of specialization within degree programs, and licensure programs for special education, physical and speech therapy, adapted physical education and/or education, public health, and rehabilitation counseling.

All of the state universities offer some developmental disabilities coursework on the undergraduate level. In addition, all five state universities which have graduate level work offer some developmental disabilities courses on that level. The state university system's offerings are concentrated in the fields of special education, speech therapy, and adapted physical education and recreation.

Metropolitan State University does not have traditional majors but grants bachelor's degrees on the basis of "competencies." The developmental disabilities coursework offered at Metro includes general human services courses on topics like "Community Services for the Mentally Retarded" and "Rehabilitation of the Physically and Mentally Disabled"; the university also offers internships at residential facilities and DACs. Southwest State University offers a few courses in special education, speech therapy, adapted physical education, and health education.

The remaining five state universities--Bemidji, Mankato, Moorhead, St. Cloud, and Winona--all offer coursework in special education and speech therapy. Four of the five offer developmental disabilities coursework in psychology and in adapted physical education and/or therapeutic recreation; three offer vocational rehabilitation/rehabilitation counseling and music therapy courses; and two offer art therapy.

The special education course offerings at these state universities are extensive. On the undergraduate and graduate level, programs for licensure in several areas of special education are available in conjunction with majors in special education, minors, and specializations within elementary and/or secondary education majors. Teaching educable and trainable mentally retarded persons (EMR and TMR) and special learning disabilities are the most commonly offered special education concentrations. In addition, majors/minors/specializations are offered in teaching the severely handicapped (Mankato), emotionally disturbed (Mankato, Moorhead, and Winona), behavior problems (Moorhead), orthopedically handicapped (St. Cloud), and in early childhood education (Mankato, St. Cloud, and Winona).

The University of Minnesota's two-year colleges at Crookston and Waseca were included in the earlier discussion of two-year and community colleges. The Morris campus offers one course with developmental disabilities content. The University of Minnesota, Duluth offers undergraduate courses in special education, speech therapy, adapted physical education, and home economics, and graduate coursework in special education and speech therapy. Bachelor's degrees are available in adapted physical education, speech therapy, and special education, and master's degrees in speech therapy and special education.

A full range of developmental disabilities coursework is offered at the University of Minnesota, Twin Cities campus. Developmental disabilities coursework is offered in undergraduate, graduate, and extension programs in special education, therapy (occupational, physical, art, speech, music, and dance), psychology, social work, vocational education, home economics, public health, and physical education. Undergraduate degrees are offered in music, occupational, physical, and speech therapy; adapted physical education is a specialization in P.E. Graduate degrees are offered in physical and speech therapy; special education is an area of concentration in educational psychology master's and doctoral programs, and "Chronic Illness and Handicapping Conditions of Children" is a concentration in the master's in public health program.

Special education coursework at the Twin Cities campus of the University of Minnesota covers infants, preschoolers, and elementary and secondary school students with a range of disabilities including mental retardation, physical handicaps, visual and hearing impairments, behavior problems, emotional disturbances, and learning disabilities.

Licensure programs in educational psychology include: learning disabilities, behavior problems, and teaching seriously emotionally disturbed, educable mentally retarded, physically handicapped, severely and profoundly retarded, and children with severe hearing impairments.

C. Relationship between Training Programs and Employment of Degreed Staff

Residential facilities (ICF-MRs) and developmental achievement centers (DACs) are two community services which are available to developmentally disabled people in every region of the state. Table 4 shows the number and capacity of these facilities in the entire state and by region. (For further information on Minnesota ICF-MR and DAC facilities, see *Policy Analysis Papers No. 2, 4, 6, 7, 8, 9, and 11.*) As Table 4 indicates, ICF-MR and DAC facilities are distributed throughout the state. Many of the larger facilities are located in the metropolitan areas. Table 4 also includes summary information on the regional distribution of educational institutions with developmental disabilities coursework.

Some facilities require that their employees complete a bachelor of arts or science degree as a minimum level of competence. A previous policy analysis paper found a wide range of bachelor's employment levels in DACs (*Policy Analysis Paper No. 7*, p. 9). Region Eight reported the lowest proportion of professionals with bachelor's degrees (21.4%), while Region Eleven had three and a half times as many bachelor's employees (73.5%). A comparison between the frequency of degreed professional staff employed at DACs in a regional and the number of college programs available in the region shows a direct relationship. In areas with one or no training

Table 4
Residential Facilities, Developmental Achievement Centers, and Educational Institutions with Developmental Disabilities Coursework by Region

	RESIDENTIAL FACILITIES		DEVELOPMENTAL ACHIEVEMENT CENTERS		EDUCATIONAL INSTITUTIONS WITH DEVELOPMENTAL DISABILITIES COURSEWORK
REGION	Number of Facilities	Total Capacity of Facilities	Number of Facilities	Total Capacity of Facilities	
One	11 (4%)	135 (3%)	6 (6%)	207 (4%)	1 (2%)
Two	6 (2%)	70 (1%)	4 (4%)	145 (3%)	1 (2%)
Three	31 (10%)	357 (8%)	10 (9%)	600 (11%)	6 (10%)
Four	21 (7%)	221 (5%)	7 (7%)	276 (5%)	4 (7%)
Five	7 (2%)	58 (1%)	6 (6%)	217 (4%)	1 (2%)
Six	25 (8%)	293 (6%)	9 (8%)	393 (7%)	3 (5%)
Seven	17 (6%)	340 (7%)	8 (8%)	496 (9%)	4 (7%)
Eight	13 (4%)	305 (6%)	8 (8%)	337 (6%)	2 (3%)
Nine	19 (6%)	238 (5%)	8 (8%)	302 (5%)	4 (7%)
Ten	35 (12%)	562 (12%)	13 (12%)	636 (11%)	9 (16%)
Eleven	119 (39%)	2,214 (46%)	27 (25%)	1,975 (35%)	22 (39%)
STATE TOTAL	304 (100%)	4,793 (100%)	106 (100%)	5,584 (100%)	57 (100%)

SOURCES: Minnesota Department of Public Welfare, Mental Retardation Program Division

Developmental Disabilities Program, *Policy Analysis Paper No. 6: The Financial Status of Minnesota Developmental Achievement Centers: 1980-1982.*

programs, 40% or less of the staff had a four-year degree. Areas with two or more colleges tended to have more than 40% of their staff with B.S. or B.A. degrees. The single exception to this finding was Region Seven where St. Cloud State University, St. John's, and St. Benedict's colleges are located.

V. SUMMARY AND IMPLICATIONS

This survey of coursework from Minnesota's postsecondary educational institutions was undertaken in order to assess the availability of training programs for paraprofessionals and professionals to work with developmentally disabled people. Course bulletins from 89 educational institutions were examined for credit courses with developmental disabilities content.

The major findings of the survey are as follows:

- The majority (57 of 89, or 64%) of educational institutions offer some coursework with developmental disabilities content.
- Every region in the state has at least one institution offering coursework.
- Sixty-five percent (65%) of the educational institutions with developmental disabilities coursework are located in Regions Three, Ten, and Eleven.
- Coursework with developmental disabilities content is offered in a broad range of academic disciplines as well as in paraprofessional training programs.
- Many of the institutions with coursework offer a very small number of courses; the majority of courses are concentrated in a relatively small number of educational institutions.
- One-third (11 of 33) of the area vocational technical institutes offer developmental disabilities courses, primarily in child development assistant, human services technician, and occupational therapy assistant programs.
- Three-fourths (16 of 21) of the two-year colleges offer developmental disabilities coursework in training programs for child development assistants, educational aides, human services technicians, and assistants in therapeutic recreation and occupational and physical therapy.
- One-half (4 of 8) of the Bible colleges have coursework which covers teaching mentally retarded or hearing impaired individuals.

- Nearly all (16 of 17) private, four-year colleges offer developmental disabilities coursework. Courses are offered most frequently in special education, adapted physical education and recreation, therapy, and psychology. Relatively few private colleges offer bachelor's degrees in developmental disabilities related fields, but specializations within more general degrees are common.

- All 7 of the state universities offer some developmental disabilities coursework on the undergraduate level; 5 of the 7 also offer graduate level work. Coursework is concentrated in the fields of special education, speech therapy, and adapted physical education and recreation. The special education course offerings are extensive, with licensure offered in several special education concentrations.

- The 3 four-year branches of the University of Minnesota at Morris, Duluth, and the Twin Cities all offer developmental disabilities coursework. One course is offered at Morris; Duluth has undergraduate and graduate courses in special education, speech therapy, adapted physical education, and home economics. The Twin Cities campus offers undergraduate and graduate coursework in a wide range of academic disciplines, including special education, therapy (art, physical, occupational, speech, music, and dance), psychology, social work, vocational education, public health, home economics, and physical education. A comprehensive array of special education courses are available, and licensure is offered in several special education concentrations.

- On a regional basis, there is a positive relationship between the percentage of DAC staff with bachelor's degrees and the number of colleges and universities with developmental disabilities courses.

As noted previously, this survey of coursework from Minnesota's postsecondary institutions does have some limitations. We did not attempt to judge the quality of the training provided in these institutions, nor did we obtain data on the actual number of students attending and graduating from these programs. The survey did, however, provide substantial data on educational resources for developmental disabilities training. This data suggests that there are a few areas where changes in the educational system might be in order.

These possible changes fall into two categories: changes in the statewide distribution of educational resources, and changes in the type of coursework that is offered by individual institutions and in the system as a whole. To a large extent, the distribution of developmental disabilities training programs reflects the general distribution of educational resources in the state. Thus, the relative scarcity of training opportunities in some regions is a difficult problem to tackle. However, given that every region of the state has at least one institution which offers developmental disabilities coursework, a possible strategy may be to maximize the resources available in these facilities.

Changes in the type of coursework offered appear to be needed in at least three areas. First, the majority of courses in this survey focused on the growth and development of the developmentally disabled child. There appeared to be very few courses which addressed the unique needs of developmentally disabled adults. Adult participation in age appropriate activities is an essential component of normalization. This lack of coursework focused on adults has serious implications for the ability of professionals and paraprofessionals to succeed in encourageing age appropriate activities.

Second, there appeared to be very little coursework which specifically addressed the needs of severely and profoundly handicapped individuals. As more severely disabled persons leave state institutions for community living facilities, the training technology required by DAC and ICF-MR staff will change. Institutions of higher education will need to increase their resources and knowledge base in these areas.

Third, coursework dealing with nonmentally retarded developmentally disabled persons appeared to be almost nonexistent. While the majority of developmentally disabled people are mentally retarded, substantial numbers do have other disabilities about which professionals and paraprofessionals need to obtain knowledge.

The Minnesota Higher Education Coordinating Board's recent projections on the growth of public postsecondary schools indicate that the entire system is expected to experience an aggregate decline in enrollment over the next 15 years. Perhaps this enrollment decline will mean that postsecondary schools, anxious for new markets of students, may be willing to adapt curricula to the needs of the developmental disabilities service system.

The ability of a facility for developmentally disabled persons to attract and maintain qualified and competent staff is affected by several factors. The facility's ability to pay commensurate wages and to compete with other organizations such as schools and state hospitals, etc., for qualified personnel are important factors, as is the individual professional or paraprofessional's willingness to work in certain areas of the state.

Clearly, however, the availability of postsecondary educational resources remains a major factor in the preparation of qualified staff to work with developmentally disabled persons. Individual workers require relevant coursework in theory, methods, and practical applications of research findings. Postsecondary educational facilities have been at the forefront of teaching and research issues that affect the knowledge base for teaching the developmentally disabled population. This survey suggests that postsecondary institutions could enhance their ability to achieve their training mission by making some resource distribution and curriculum changes.

VI. REFERENCES

Adkins, J. & Matson, J. L. Teaching institutionalized mentally retarded adults socially appropriate leisure skills. Mental Retardation, 1980, 18(5).

Bellamy, G., Horner, R., & Unman, D. Vocational habilitation of severely retarded adults: A direct service technology. Baltimore: University Park Press, 1970.

Brewer, G. D. & Kakalik, J. S. Handicapped children: Strategies for improving services. New York: McGraw-Hill, 1979.

Bruininks, R. H., Kudla, M. J., Wieck, C. A., & Hauber, F. A. Management problems in community residential facilities. Mental Retardation, 1980, 18(5), 127-131.

Burke, P. J. Personnel preparation: Historical perspective. Exceptional Children, 1976, 43(3), 144-147.

Coffman, T. L. & Harris, M. C. Transition shock and adjustments of mentally retarded persons. Mental Retardation, 1980, 18(1), 3-7.

Curo, A. J. & Riva, M. T. Generalization and transfer between comprehension and production: A comparison of retarded and nonretarded persons. Journal of Applied Behavioral Analysis, 1980, 13(2), 315-331.

Department of Health, Education and Welfare. Report on education. Role of higher education in mental retardation and other developmental disabilities. Washington, DC: Office of Education, 1976.

Developmental Disabilities Program. Policy analysis paper no. 2: The size of community residential facilities: Current guidelines and implications for planning. St. Paul: Developmental Disabilities Program, State Planning Agency, August, 1981.

Developmental Disabilities Program. Policy analysis paper no. 4: Cost function analysis of Minnesota intermediate care facilities for mentally retarded (ICF-MR) per diems. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, September 30, 1981.

Developmental Disabilities Program. Policy analysis paper no. 6: The financial status of Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January, 1982.

Developmental Disabilities Program. *Policy analysis paper no. 7: The program status of Minnesota developmental achievement centers: 1980-1982*. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January, 1982.

Developmental Disabilities Program. *Policy analysis paper no. 8: The client status of Minnesota developmental achievement centers: 1980-1982*. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January, 1982.

Developmental Disabilities Program. *Policy analysis paper no. 9: Summary of issues, programs and clients in Minnesota developmental achievement centers: 1980-1982*. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, February, 1982.

Developmental Disabilities Program. *Policy analysis paper no. 11: An analysis of Minnesota property values of community intermediate care facilities for mentally retarded (ICF-MRs)*. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, July 1, 1982.

Dorsey, M. F., Iwata, B. A., Ong, P., & McSween, T. E. Treatment of self-injurious behavior using a water mist. Initial response suppression and generalization. *Journal of Applied Behavioral Analysis*, 1980, *13*(2) 13(2), 348-353.

Edgerton, R. B. *Mental Retardation*. Cambridge: Harvard University Press, 1979.

Farfard, M. & Pickett, A. L. Training of paraprofessionals in special education: A selected bibliography. *Center for Advanced Study in Education*. New York: City University of New York, Case No. 15, 1977.

Ferrara, D. F. Attitudes of parents of mentally retarded children toward normalization activities. *American Journal of Mental Deficiency*, *84*(2), 145-151.

Fischer, K. *Sex education for the developmentally disabled: A guide for parents, teachers, and professionals*. Baltimore: University Park Press, 1973.

Fox, R. & Rotatori, A. F. Incidental learning in mildly retarded children. *Journal of General Psychology*, 1980, *102*(1), 121-125.

Gold, T. J., Holmes, P. A., & Holmes, N. K. Effectiveness of a group contingency procedure for increasing prevocational behavior of profoundly mentally retarded residents. *Mental Retardation*, 1982, *20*(1), 26-29.

Katstner, L. S. & Reppucci, N. D. Assessing community attitudes toward mentally retarded persons. *American Journal of Mental Deficiency*, 1979, *84*(2), 137-144.

Kelly, R. & Haulick, L. A statewide network for training special education paraprofessionals. Exceptional Children, 1982, 48(6).

Koplik, K. Teacher education. Education and Training of the Mentally Retarded, 1976, 11(4), 347-351.

Kempton, W., Bass, M., & Gordon, S. Love, sex, and birth control for the mentally retarded: A guide for parents. Philadelphia: Planned Parenthood Association of Southeastern Pennsylvania, 1973.

Kronick, D. Social development of learning disabled persons. San Francisco: Jossey-Bass Publishers, 1981.

Luckey, R. E. & Addison, M. R. The profoundly retarded: A new challenge for public education. In R. M. Anderson & J. G. Greer, Educating the Severely and Profoundly Retarded. Baltimore: University Park Press, 1976.

Mager, F. R. & Pipe, P. Analyzing performance problems or "you really oughta wanna." Belmont, California: Fearon Pitman Publishing Company, 1970.

Martin, G. & Pear, J. Behavior modification: What it is and how to do it. Englewood Cliffs, New Jersey: Prentice-Hall, 1978.

Miller, S. R., Sabatino, D. A., & Larsen, R. P. Issues in the professional preparation of secondary school special educators. Exceptional Children, 1980, 46(5), 424-433.

Minnesota Higher Education Coordinating Board. Minnesota public postsecondary education enrollment projections: 1981-1982. St. Paul: Author, December, 1981.

Miringoff, M. L. Management in human service organizations. New York: Macmillan Publishing Company, 1980.

Moore, E. The education of the paraprofessional. Education and Training of the Mentally Retarded, 1977, 12(3), 296-303.

Moran, J. M. & Kalaskian, L. H. Movement experiences for the mentally retarded or emotionally disturbed child. 8th ed. Minneapolis: Burgess Publishing Company, 1977.

Morrel, B. B. Deinstitutionalization: Those left behind. Social Work, 1979, 24(6), 528-532.

Mulick, J. A. & Schroeder, S. R. Research relating to management of antisocial behavior in mentally retarded persons. The Psychological Record, 1980, 30, 397-417.

Neef, N. A., Iwata, B. A., & Page, T. J. The effects of interspersal training versus high-density reinforcement on spelling acquisition and retention. Journal of Applied Behavior Analysis, 1980, 13, 153-158.

Perske, R. About sexual development: An attempt to be human with the mentally retarded. Mental Retardation, 1973, 13(1), 6-8.

Perske, R. & Smith, J. Beyond the ordinary: The preparation of professionals to educate severely and profoundly handicapped persons: Toward the development of standards and criteria. Seattle: The American Association for the Education of the Severely/Profoundly Handicapped, 1977.

Pickett, A. L. The utilization and training of paraprofessionals in special education: Results of a survey of state directors of special education and descriptions of training programs. Washington, DC: Bureau of Education for the Handicapped, Case No. 12, 1977.

Smith, R. M. Clinical teaching: Methods of instruction for the retarded. 2nd ed. New York: McGraw-Hill, 1974.

Sowers, J., Rusch, F. R., Connis, R. T., & Commings, L. E. Teaching mentally retarded adults to time-manage in a vocational setting. Journal of Applied Behavioral Analysis, 1980, 13, 119-128.

Staats, E. B. Training educators for the handicapped: A need to redirect federal programs. Washington, DC: Comptroller General of the U.S., 1976.

Sulzer-Azaroff, G. & Mayr, G. R. Applying behavior-analysis procedures with children and youth. New York: Holt, Rinehart and Winston, 1977.

Thorson, G. & Lipscomb, T. Occipital alpha training: Mentally retarded adolescents. Mental Retardation, 1982, 20(1), 30-32.

Tjosvold, D. & Tjosvold, M. M. Working with mentally handicapped persons in their residence. New York: Free Press, 1981

Watson, L. S. A management system approach to teaching independent living skills and managing disruptive behaviors. Tuscaloosa, Alabama: Behavior Modification Technology, 1978.

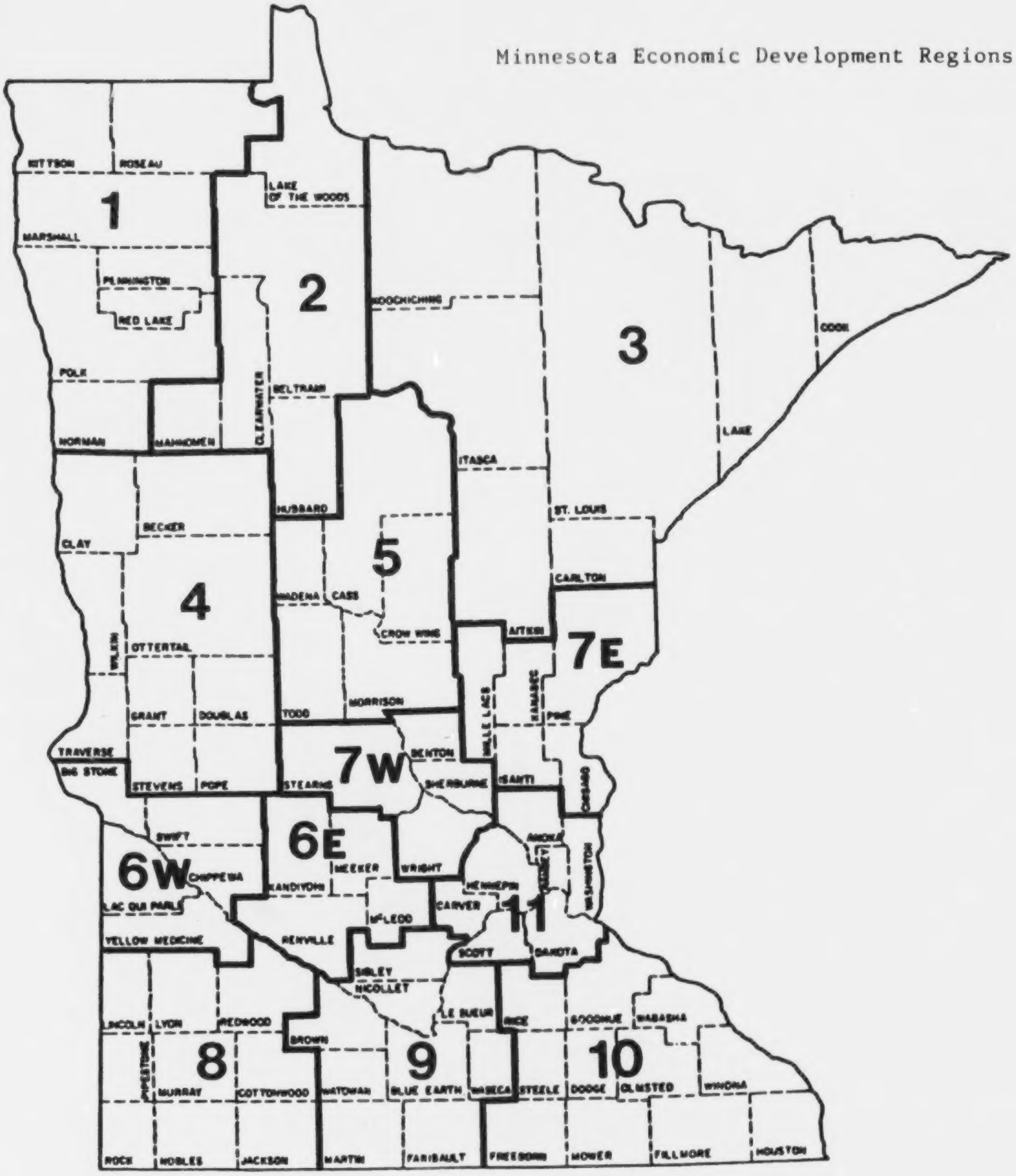
Wehman, P. & McLaughlin, P. J. Vocational curriculum for developmentally disabled persons. Baltimore: University Park Press, 1980.

Weisz, J. R. & Yeates, K. O. Cognitive development in retarded and nonretarded persons: Piagetian tests of the simular structure hypotensis. Psychological Bulletin, 1981, 90, 153-178.

Wieck, C. A. Training and development of staff: Lessons from business and industry. Education Unlimited, 1979, 1(3), 6-13.

Williams, W., Brown, L., & Certo, N. Components of instructional programs for severely handicapped students. In G. N. Haring & L. Brown, Teaching the Severely Handicapped. Seattle: American Association for the Education of the Severely/Profoundly Handicapped, 1976.

APPENDIX



Minnesota Economic Development Regions

1
KITTSON
ROSEAU
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
2
LAKE OF THE WOODS
BELTRAMI
CLEARWATER
HUBBARD
3
KOOCHICHING
ITASCA
ST. LOUIS
LAKE
COOK
CARLTON
4
CLAY
BECKER
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TRAVERSE
BIG STONE
STEVENS
POPE
5
WADENA
CASS
CROW WING
TODD
MORRISON
7E
AITKIN
KANABEC
PINE
MILLE LACS
ISANTI
CHISAGO
7W
BENTON
STEARNS
SHERBURNE
6E
MEEKER
WRIGHT
KANDIYOHI
McLEOD
RENVILLE
6W
SWIFT
CHIPPEWA
LAC QUI PARLE
YELLOW MEDICINE
11
ANOKA
RAMSEY
WASHINGTON
HENNEPIN
CARVER
SCOTT
DAKOTA
8
LINCOLN
LYON
REDWOOD
PIPESTONE
MURRAY
COTTONWOOD
ROCK
NOBLES
JACKSON
9
SIBLEY
NICOLLET
LE SUEUR
BROWN
WATONWAN
BLUE EARTH
WASECA
MARTIN
FARIBAULT
10
RICE
GOODHUE
WABASHA
STEELE
DODGE
OLMSTED
WINONA
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 14

TRAINING NEEDS AS PERCEIVED BY RESIDENTIAL AND DAY PROGRAM ADMINISTRATORS AND STAFF

I. INTRODUCTION

The purpose of this paper is to report the findings of a study of the perceived training needs of residential and day program staff working in community facilities serving developmentally disabled people.

An assessment of personnel and training programs for staff working with developmentally disabled people is mandated by the 1978 Developmental Disabilities Assistance and Bill of Rights Act (P.L. 95-602) which states:

> The (State) plan (for developmental disabilities) must provide for . . . an assessment of the adequacy of the skill level of professionals and paraprofessionals serving persons with developmental disabilities in the state and the adequacy of the State programs and plans supporting training of such professionals and paraprofessionals in maintaining the quality of services provided to persons with developmental disabilities in the State . . .. (42 USC 6009).

This policy analysis paper is the third in a series of three reports on the current status of training opportunities for professionals and paraprofessionals working with the developmentally disabled, and the training needs of these individuals.

The first paper (*Policy Analysis Paper No. 12*) focused on nonformal training. The second paper (*Policy Analysis Paper No. 13*) reported the results of a survey of formal training programs in postsecondary institutions. This paper will present the results of two surveys of a statewide sample of administrators and line staff in community residential facilities and developmental achievement centers.

II. REVIEW OF LITERATURE

Since extensive literature reviews on training-related topics were included in *Policy Analysis Papers 12* and *13*, this review will consist of a brief summary of additional literature on staff performance, identification of training needs, and evaluation of training opportunities.

The literature on staff performance suggests that performance is affected by congruency between staff expectations and actual assignment of duties (Miringoff, 1980; Nebraska Mental Retardation Panel, 1979; Zaharia & Baumeister, 1979); staff attitudes about their job responsibilities (Elder & Magrab, 1980; Humm-Delgado, 1979); the potential for career advancement and training (Ramsayer, 1980; Jones, 1979; Pickett, 1979; New Career Training Laboratory, 1979); and the staff's level of confidence in their understanding of the current technology (Dellinger, 1978).

Identification of training needs may be revealed by individual performance evaluations (Frank, 1970). Concrete measures that encourage a competency-based education and evaluation system are most effective measures of skill possession (Nebraska Mental Retardation Panel, 1979; Repp & Deitz, 1979; Wolraich, 1979). A competency-based evaluation system of staff and training opportunities is recommended instead of the traditional testimonial responses (Wieck, 1979; Mager & Pipe, 1970; Frank, 1970; Byham, 1970).

III. METHODOLOGY

The methodology of this paper consisted of two surveys of administrators and line staff in developmental achievement centers (DACs) and residential facilities (including Rule 34, ICF-MRs, Rule 80--Physically Handicapped, Rule 5--Child Caring Institutions, and Rule 8--Group Homes for Adolescents).

A random sample was drawn of agencies from each economic development region. Participation in the survey was voluntary. The questionnaires were designed by the Developmental Disabilities Program staff, with input from the regional Developmental Disabilities coordinators. Interviews were conducted by the regional coordinators; surveys were edited and coded by Developmental Disabilities Program staff.

Using a semistructured questionnaire, administrators were asked about their agencies' staff recruitment and development activities and preservice and in-service training opportunities, as well as their own educational backgrounds and experiences. The average length of time for administrative interviews ranged from one-half hour to two hours. A total of 113 surveys were completed between August and October, 1981.

Direct care staff were chosen randomly from the agencies' list of professional and paraprofessional employees who spend more than 50% of their time directly with clients. They were provided with a structured questionnaire which asked about their educational background and experience, client demographics, and perceived training needs. A total of 312 surveys were completed between August and November, 1981.

IV. SURVEY RESULTS

The results of the administrator and staff surveys will be presented in the following order: (a) education level of administrators and staff; (b) years of experience; (c) staff supervisory responsibilities and client contact; (d) staff and administrators' perceptions of client characteristics; (e) personnel policies and staff development; (f) staff turnover and recruitment; and (g) preservice and in-service training.

Educational Level: Both administrators and line staff were asked to indicate their level of education. As Table 1 shows, DAC staff tend to have more years of education than residential staff. The majority of DAC line staff (54 percent) have a bachelor's or master's degree, while 38 percent of the residential direct care staff have this level of education. Educational training of the two administrative groups, however, is very similar.

Years of Experience: DAC administrators and staff also tend to have more years of experience in the field, as Table 2 shows. The median length of work experience for DAC staff is 4 years, while the median for residential staff is 2 years. For DAC administrators, the median is 10 years; for residential administrators, it is 8.5 years.

Staff Supervisory Responsibilities and Client Contact: Staff members were asked whether they supervise other staff. Of this sample, 25 of 69 (36 percent) day program staff supervised others while 61 of 243 (25 percent) residential program staff had supervisory responsibilities.

Staff members were asked to estimate the amount of time they spent in direct contact with clients. Approximately 74 percent of the DAC staff in this sample spent from 76 to 100 percent of their time with clients. Of the residential staff, 66 percent spent from 76 to 100 percent of their time with clients.

Perceptions of Client Characteristics: Both staff and administrators were asked about the characteristics of the clients served in their agencies. Table 3 shows the responses to these questions including the primary disability level served, and the proportions of multiply handicapped clients and clients with severe behavior problems. In general, the staff viewed the clients as higher functioning and having fewer handicapping conditions than administrators did. There seemed to be closer agreement on the proportion of clients with severe behavior problems.

Table 1
Education Levels of Staff and Administrators
(Minnesota Residential and Day Program
Staff and Administrators: 1981;
n = 312 and n = 113;
100% Reporting)

LEVEL OF EDUCATION	DEVELOPMENTAL ACHIEVEMENT CENTERS				RESIDENTIAL PROGRAMS			
	Staff		Administrators		Staff		Administrators	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Less than high school	1	1%	0	0%	11	5%	0	0%
High school	14	20	2	6	76	31	2	2
AVTI certificate/Associate of Arts degree	16	23	2	6	64	26	5	6
Bachelor's degree	35	51	19	59	88	36	49	61
Master's degree and beyond	3	5	9	29	4	2	25	31
TOTAL	69	100%	32	100%	243	100%	81	100%

Table 2
Years of Experience of Staff and Administrators
(Minnesota Residential and Day Program
Staff and Administrators: 1981;
n = 312 and n = 113;
100% Reporting)

NUMBER OF YEARS OF EXPERIENCE	DEVELOPMENTAL ACHIEVEMENT CENTERS				RESIDENTIAL PROGRAMS			
	Staff		Administrators		Staff		Administrators	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0 to 1 year	6	9%	0	0%	53	21%	0	0%
1 to 2 years	8	12	0	0	60	25	2	2
2 to 4 years	20	29	4	13	60	25	8	10
4 to 7 years	20	29	5	16	46	19	21	26
7 years and more	15	21	23	71	24	10	50	62
TOTAL	69	100%	32	100%	243	100%	81	100%

Table 3
Perceptions of Client Characteristics
(Minnesota Residential and Day Program Staff and Administrators: 1981; n = 312 and n = 113; 100% Reporting)

PERCEIVED CLIENTS CHARACTERISTICS	DEVELOPMENTAL ACHIEVEMENT CENTERS				RESIDENTIAL PROGRAMS			
	Staff		Administrators		Staff		Administrators	
	Number[a]	Percent	Number	Percent	Number[a]	Percent	Number[a]	Percent
Functioning Level of Majority of Clients:								
• Mild	5	7%	2	6%	26	10%	10	12%
• Moderate	44	63%	14	44%	129	51%	38	46%
• Severe	17	24%	16	50%	80	31%	27	33%
• Profound	4	6%	0	0%	20	8%	8	10%
Proportion of Multiply Handicapped Clients:								
• 0%-25%	46	66%	17	53%	161	67%	39	48%
• 26%-50%	13	19%	14	44%	30	13%	25	31%
• 51%-75%	7	10%	1	3%	15	6%	6	7%
• 76%-100%	3	4%	0	0%	33	14%	11	14%
Proportion of Clients with Severe Behavior Problems:								
• 0%-25%	61	88%	32	100%	173	71%	62	77%
• 26%-50%	6	10%	0	0%	43	18%	9	11%
• 51%-75%	1	1%	0	0%	8	3%	7	9%
• 76%-100%	1	1%	0	0%	21	9%	3	4%

NOTE: Percentages may not equal 100% due to rounding.

[a] Numbers may vary due to multiple responses.

Personnel Policies and Staff Development: The personnel cycle of hiring, training, and retention of employees should include maintaining up-to-date job descriptions and personnel policies, and conducting regular job evaluations or performance appraisals.

When asked whether their agency had up-to-date job descriptions, 31 of 32 DAC administrators reported having current job descriptions, while 79 of 81 residential administrators stated the same. Almost all administrative respondents (109 of 113) reported that their agencies had personnel policies.

Of the DAC directors, 25 of 32 (78 percent) reported that performance appraisals were conducted. This practice was also reported by 76 of 81 (94 percent) residential administrators. The frequency of performance appraisals was reported as follows: (a) annual = 66 (58 percent); (b) semiannual = 25 (22 percent); (c) quarterly = 5 (4 percent); (d) other = 5 (4 percent); and (e) none = 12 (11 percent).

Of the 113 administrators, 61 reported that the results of the performance appraisals were used in determining staff development plans. However, only 35 of the 113 reported that individual staff development plans had been written to correct staff deficits in skills or knowledge.

Staff Turnover and Recruitment: Administrators were asked which position in their agency had the greatest turnover rate. Thirty-two administrators (29 percent) reported no turnover during 1981. The greatest turnover rate occurred in two residential facility positions: houseparent and house parent aide. The most frequent reason cited for turnover was personal reasons (n = 37) followed by leaving for a higher paying position (n = 35) and job dissatisfaction (n = 10).

Administrators were also asked whether any specific staff positions were difficult to fill. Of the 113 agencies, 70 (64 percent) reported no difficulty in locating employees. Residential facilities tended to report more difficulty in recruiting houseparents because of unfavorable working hours (n = 10; 12 percent) and low salary (n = 6, 7 percent). DAC administrators tended to have difficulty recruiting staff willing to work in the rural part of the state.

Preservice and In-Service Training: Both administrators and staff were asked questions regarding preservice and in-service training. The administrators were asked to list the topics covered in the agency's preservice and in-service training, and to describe the methods of providing in-service training. Staff were asked to indicate what in-service topics they needed and desired.

The administrators reported that their preservice training activities cover a wide variety of topics. The most common topic of preservice training (37 percent) is "general program orientation." Specific assessment and charting skills are the next most common topic (18 percent). Some preservice training includes information on safety (11 percent), skill development (9 percent), interpersonal skills (8 percent), or medical (7 percent). Occasionally, the training includes legal information (4 percent) or site visits (4 percent).

The administrators' responses indicate that in-service training focuses on more specific task-oriented topics. Skill development (21 percent), interpersonal skills (20 percent), and medication (19 percent) in-services are the most commonly reported training provided by the sample of facilities. Safety (16 percent) and program planning (15 percent) sessions are less frequently provided. In-services on legal issues (6 percent), program orientation (3 percent), and site visits (1 percent) are rarely provided.

Administrators reported that they generally make arrangements for in-service training to be provided by community professionals on an independent basis. Medical professionals from the community, e.g., nurses and dental assistants, are the most frequent instructors (27 percent). Local educators, e.g., college instructors, or civil service persons, e.g., fire marshals, represent 20 percent of the service presenters. Administrators use their own staff expertise and presentations offered by professional groups, e.g., MinnDACA or ARRM, at the same level (21 percent). An additional 11 percent of the training is provided by outside consultants.

In order to assess staff in-service training needs, line staff were presented with a list of 29 possible topics for in-service training. Respondents indicated by "yes" or "no" whether the topic was needed and desired. Table 4 presents all 29 topics and the total number of "yes" responses from the 312 direct care staff members.

As Table 4 shows, in-service training on behavior problems is clearly the area of greatest perceived need. "Preventing behavior problems" was the top response, with almost 4 out of 5 line staff (79 percent) requesting this topic. The second highest response was "designing and developing behavior management programs," which was seen as a needed and desired training topic by two-thirds (64 percent) of the surveyed staff. "Handling client self-abuse" was the fourth highest response (61 percent), and "handling severe behavior problems" was the sixth highest (59 percent).

Current information on developmental disabilities was perceived as a continuing need by those questioned. Of the respondents, 63 percent (68 percent DAC and 62 percent residential facilities) wanted training sessions that focused on recent findings about handicapping conditions and developmental disabilities. An in-service on available services for client referrals was requested by 3 out of every 5 workers (60 percent).

Table 4
Staff Development Topics Needed and Desired
(Minnesota Developmental Disabilities
Staff: 1981; n = 312;
100% Reporting)

RANK ORDER	STAFF DEVELOPMENT TOPIC	FREQUENCY OF "YES" RESPONSES	
		Number	Percent
1.	Preventing behavior problems	245	79%
2.	Designing and developing behavior management programs	201	64%
3.	Current information--handicapping conditions	197	63%
4.	Handling client self-abuse	190	61%
5.	Resources/services for developmentally disabled clients	187	60%
6.	Handling severe behavior problems (aggression)	185	59%
6.	Community acceptance	185	59%
7.	Alternative communication methods	178	57%
8.	Improving team relationships	176	56%
8.	Legal rights	176	56%
9.	Medications and side effects	171	55%
9.	Implementing behavior management programs	168	54%
10.	Using curriculum/training materials	161	52%
11.	Selecting curriculum/training materials	157	50%
11.	Health care procedures	156	50%
12.	Goals, objectives (individual program plans)	154	49%
12.	Normalization--application	153	49%

Table 4
(continued)

RANK ORDER	STAFF DEVELOPMENT TOPIC	FREQUENCY OF "YES" RESPONSES Number	Percent
13.	Task analysis	143	46%
13.	Teaching new skills	142	46%
14.	Changing teaching programs that don't work	138	44%
15.	Communicating with parents	128	41%
15.	Observing, defining, recording client behavior	128	41%
16.	Accurate record keeping	125	40%
16.	Training other staff how to teach	125	40%
17.	Assessment of clients	83	27%
17.	Positioning clients with physical handicaps	83	27%
18.	Using adaptive equipment	76	24%
19.	Developing eating responses	71	23%
20.	Toilet training	51	16%

After reviewing all topics, each staff member was asked to rank the five most important topics, and those priority ranks were tabulated. By rank order, the top five topics were: (a) preventing behavior problems; (b) designing behavior management programs; (c) knowing about resources and services for developmentally disabled clients; (d) knowing about medications and side effects; and (e) writing goals, objectives, and individual program plans (IPPs).

V. SUMMARY

This paper reported the results of two surveys of residential and day program staff. Statewide samples of 312 line staff and 113 administrators responded to questions regarding their educational backgrounds and experience, agency personnel issues, and in-service training needs.

Line staff members were given 29 possible topics for in-service training, and asked to indicate whether training on each topic was needed and desired. Staff members were then asked to rank the five most important topics. These respondents identified training on behavior problems as their top priority need in in-service training. Preventing behavior problems and designing behavior management programs were the two highest need topics, both in terms of the total frequency of positive responses and the priority ranking of the five most critical areas of need.

VI. REFERENCES

Byham, W.C. Personnel research. In R. F. Moore, AMA Management Handbook. New York: American Management Association, 1970.

Dellinger, J. K. & Shope, L. J. Selected characteristics and working conditions of direct service staff in Pennsylvania CLAs. Mental Retardation, 1978, 16(1), 19-21.

Elder, J. O. & Magrab, P. R. (Eds.). Coordinating services to handicapped children; a handbook for interagency collaboration. Baltimore: Paul H. Brookes, 1980.

Frank, R. D. Development and training. In R. F. Moore, AMA Management Handbook. New York: American Management Association, 1970.

Humm-Delgado, D. Opinions of community residence staff about their work responsibilities. Mental Retardation, 1979, 17, 250-251.

Jones, W. E. Communitization: An alternative approach to social and service reform. New York: National Education Center for Paraprofessionals in Mental Health, April, 1979.

Mager, R. F. & Pipe, P. Analyzing performance problems or you really oughta wanna. Belmont: Fearon, 1970.

Miringoff, M. L. Management in human service organizations. New York: Macmillan Publishing Co. Inc., 1980.

Nebraska Mental Retardation Panel. A statewide manpower model: Report of the task force on manpower development. Omaha, Nebraska: Office of Mental Retardation, 1979.

New Careers Training Laboratory. Career ladders and a training model for the (re)training of direct service workers in community based programs for the developmentally disabled. New York: City University of New York, 1979.

Ramsayer, G. I. Perceived roles of paraprofessionals in special education settings (unpublished doctoral dissertation), University of Michigan, 1980.

Repp, A. C. & Deitz, D. E. D. Improving administrative related staff behaviors at a state institution. Mental Retardation, 1979, 17(4), 185-192.

Repp, A. C. & Deitz, D. E. D. Reinforcement-based reductive procedures; training and monitoring of institutional staff. Mental Retardation, 1979, 17(5), 221-226.

Wieck, C. Training and development of staff: Lessons from business and industry. Education Unlimited, 1979, 1(3), 6-13.

Wolraich, M. Pediatric training in developmental disabilities. Mental Retardation, 1979, 17(3), 133-136.

Zaharia, E. S. & Baumeister, A. A. Cross-organizational job satisfaction of technician level staff members. American Journal of Mental Deficiency, 1979, 84(1), 30-35.

Zaharia, E. S. & Baumeister, A. A. Technician losses in public residential facilities. American Journal of Mental Deficiency, 84(1), 36-39.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 14: Training Needs as Perceived by Residential and Day Program Administrators and Staff.* St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, April, 1983.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 15

AN UPDATE TO POLICY ANALYSIS SERIES NO. 4:

COST FUNCTION ANALYSIS OF MINNESOTA INTERMEDIATE CARE FACILITIES FOR MENTALLY RETARDED (ICF-MR) PER DIEMS: 1980

I. INTRODUCTION

In September, 1981, the Developmental Disabilities Program published a study of Minnesota's community-based ICF-MR per diem costs (*Policy Analysis Paper No. 4*, 1981). That study was based upon 1979 data and attempted to identify some of the factors which influence the cost of community-based residential services for people with mental retardation and other developmental disabilities. The current study uses data from calendar year 1980 and is an update to the earlier cost function analysis. A third cost study of ICF-MR per diem rates using 1981 data is forthcoming.

Cuts in federal programs and state budget difficulties make such analyses imperative. More and more, cost is becoming a central issue in both the provision of existing programs and the development of new services. Identifying factors which influence the cost of programs will enable policy makers and service providers to plan more effectively and use resources more efficiently; it will also enable them to assess more accurately the relative merits of alternative models of service delivery.

The importance of identifying the cost implications of community-based services for developmentally disabled people is underscored by several factors. Among these are: (1) the *Welsch v. Noot* Consent Decree (1980) mandate to further reduce the number of mentally retarded people living in state institutions; (2) the continuing increase in the number of community-based ICF-MRs; (3) the "double-funding" dilemma of maintaining both a state hospital system and a community-based system of services; and (4) the emergence of alternative, cost-efficient models of residential care such as specialized adult foster care, semi-independent living services (SILS), and family subsidy and support programs.

II. ICF-MRs IN MINNESOTA

Intermediate Care Facilities-Mental Retardation (ICF-MR) are licensed under Department of Public Welfare (DPW) Rule 34 standards. They are also licensed by the Department of Health as supervised living facilities (SLFs) to provide food, care, and lodging on a 24-hour basis.

ICF-MRs are supported primarily by the federal Medicaid (Title XIX) program and are reimbursed under DPW Rule 52.

Since the early 1960s, Minnesota has gradually increased the capacity of its community-based residential care system. Twenty years ago there were approximately 100 people living in Minnesota's five group homes. As of September, 1982, there were 306 ICF-MR facilities in the state with a total licensed capacity of 4,830.

While the number of community-based ICF-MRs has steadily increased during the past several years, the number of mentally retarded people residing in state hospitals has been declining. Table 1 and Figure 1 illustrate this gradual shift in emphasis within Minnesota's system of residential care--decreasing bed capacity within state hospitals; increasing capacity of community-based ICF-MR facilities. Figure 1 also shows an increase in Minnesota's overall ICF-MR certified bed capacity--from approximately 6,000 in 1975 to 7,500 in 1982--despite the recent closing of two state hospitals. Today, more than 1 out of 3 (35.7%) ICF-MR certified beds is located in a state hospital. Seven years ago, institutions accounted for over three-fourths (76.2%) of the ICF-MR certified bed capacity in the state.

Table 1
ICF-MR Certified Bed Capacity Of Minnesota Public and Community-Based Residential Care Facilities: 1975 through 1982

	STATE HOSPITALS		COMMUNITY ICF-MRS		
YEAR	Licensed Capacity	Percent of Total	Licensed Capacity	Percent of Total	TOTAL ICF-MR CERTIFIED LICENSED CAPACITY
1975	4,499	76.2	1,409	23.8	5,908
1976	3,717	62.3	2,252	37.7	5,969
1977	3,540	55.9	2,792	44.1	6,332
1978	3,523	49.6	3,583	50.4	7,106
1979	3,543	49.4	3,624	50.6	7,167
1980	3,079	42.8	4,117	57.2	7,196
1981	3,056	40.4	4,507	59.6	7,563
1982 (Mar)	2,679	36.5	4,659	63.5	7,338
1982 (Sep)	2,679	35.7	4,828	64.3	7,507

SOURCES: Division of Health Systems, 1975 through 1982; DPW Rule 52 cost reports, 1980 and 1981; Social Services Division, 1975 through 1981; Department of Public Welfare, 1977 and 1981.

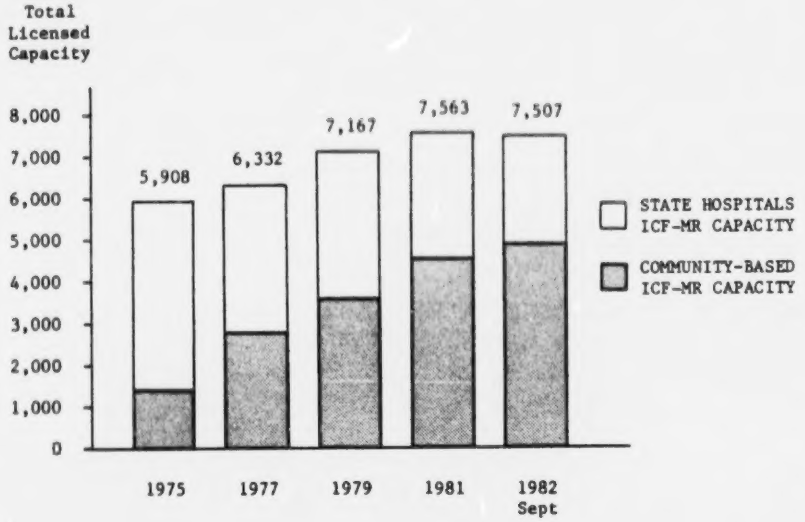


Figure 1. **Changes in Minnesota's Public and Community-Based ICF-MR Certified Bed Capacity: 1975 through 1982**

Over one-third (34.1%) of the approximately 246 community facilitities operating during 1980 were licensed to serve six or fewer residents. An additional 72 facilities (29.3%) were licensed to serve seven to twelve people. Over one-third (N = 90; 36.6%) of the facilities operating in 1980 had 13 or more residents.

Most people living in community ICF-MRs reside in larger facilities. While one-third of the ICF-MR facilities in Minnesota in 1980 were small, six-person homes, they accounted for only 11.9% of the state's total community ICF-MR capacity. Conversely, the ten largest facilities represented only 4.1% of the total number of facilities in 1980, but accounted for nearly 1 out of every 4 community ICF-MR beds. Table 2 and Figure 2 show the distribution of ICF-MRs operating in 1980 by size categories and licensed capacity.

Table 2
Number and Licensed Capacity of Minnesota ICF-MRs
by Size Categories: 1980

SIZE OF FACILITY	FACILITIES		LICENSED CAPACITY	
	Number	Percent	Total	Percent
6 or fewer residents	84	34.1	503	11.9
7 to 12 residents	72	29.3	696	16.5
13 to 16 residents	50	20.3	741	17.5
17 to 32 residents	8	3.3	207	4.9
33 to 64 residents	22	8.9	1,047	24.7
65 to 171 residents	10	4.1	1,037	24.5
TOTAL	246	100.0	4,231	100.0

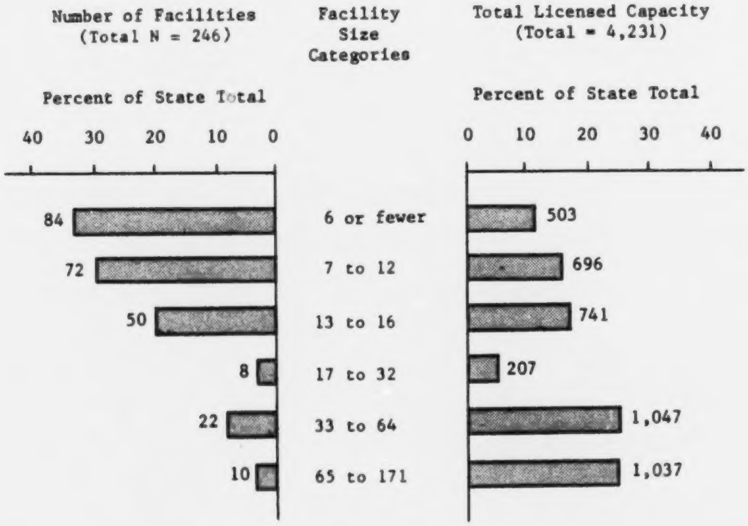


Figure 2. Distribution of Minnesota ICF-MR Facilities by Size Categories, Number and Total Bed Capacity: 1980

Various studies have suggested that the costs of residential care are greatly influenced by resident characteristics; that staff-resident ratios are highly correlated with resident dependency levels; and that personnel costs account for a major share of total operating expenses (Piasecki, Pittinger, & Rutman, 1978; Wieck & Bruininks, 1980; *Policy Analysis Paper No. 4*, 1981). A 20% random sample of cost reports for community ICF-MR facilities operating during 1981 indicated that a major portion (71.2%) of the total operating expenses were related to personnel costs--personnel expenses for direct care services accounted for approximately 47.0% of total operating costs. Figure 3 illustrates the cost of community ICF-MR operations according to six general cost categories: personnel, transportation, utilities, property, supplies, and administration.

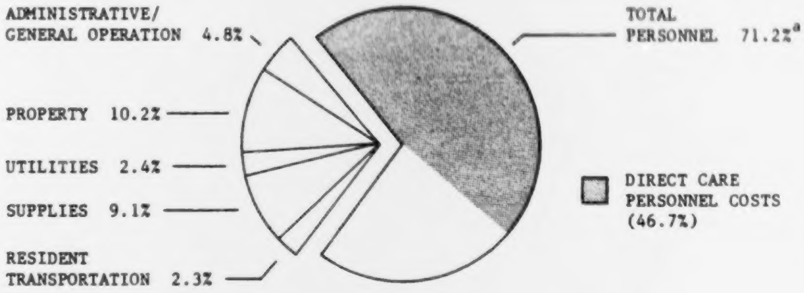


Figure 3. ICF-MR Operating Expenses by Cost Categories: Calendar Year 1981 (20 percent random sample of cost reports; N = 51, Total N = 255)

[a] Total Personnel costs include wages, salaries, purchased services and employee benefits for administrative, food services, maintenance, consultant and professional services, and direct care of residents.

III. METHODOLOGY

The data for this study come from two primary sources: Department of Public Welfare Rule 52 cost reports on file in the Long-Term Care Rate Division; and the data files of the Quality Assurance and Review Program within the Minnesota Department of Health.

DPW Rule 52 establishes the standards for determining reimbursement (per diem) rates for providers of ICF-MR certified residential services. Providers must submit a cost report each year. The per diem rate for each facility is based upon actual, allowable expenses incurred during the preceding year plus any allowable known cost changes which will occur during the upcoming year. Effective July 20, 1981, per diem rate increases have been limited to no more than 10% per year. In response to state budget difficulties, the Legislature ordered a 4% reduction in payments to vendors of Medicaid services after January 1, 1983.

The Quality Assurance and Review (QAR) program is a federally mandated program which annually surveys facilities which are reimbursed under the federal Medicaid program. QAR surveys report on resident dependency levels, potential for restoration, and treatment programs. They also indicate the appropriateness of current placements and the potential for movement into less restrictive living arrangements.

This analysis of per diem rates includes 230 of the 246 community ICF-MR facilities operating during 1980. Sixteen facilities were excluded from this analysis because complete QAR data for those facilities were not available.

The statistical methodology employed in this study is similar to the previous cost study (*Policy Analysis Paper No. 4*, 1981). Both analyses are a replication of the cost function analysis component of a national study on the costs of residential care (Wieck & Bruininks, 1980). That report contains a thorough review of the literature on cost studies and a discussion of the "theory" which underlies this study's treatment of cost-related variables.

This study is not definitive. Statistical techniques cannot "prove" cause-effect relationships. They can, however, help policy makers to estimate and/or predict cause-effect relationships with greater reliability, hence, to make better decisions about allocating scarce resources.

The current study attempts to identify several factors and their probable impact upon ICF-MR per diem rates (cost). One important caveat: cost data derived from DPW files may reflect the system of reimbursement rather than the total cost of operation. That is, not all costs of operation are reimbursable under Rule 52; some "costs" of operation do not show up as dollar expenses; and ICF-MR facilities receive funds outside of the Medicaid reimbursement system, e.g., contributions from residents and/or their families.

For the purposes of this study, cost factors were defined according to three broad categories: location, organizational structure, and resident characteristics. The study examines a number of variables and their impact upon cost using two statistical techniques: (1) analysis of variance and (2) multiple regression.

IV. ANALYSIS OF VARIANCE

The first objective of this study is to test hypotheses about relationships between selected variables, such as facility size or resident characteristics, and per diem rates (cost). Through a comparison of mean values,[1] one-way analysis of variance attempts to determine to what extent facility per diem rates differ from one another; and then whether or not those differences are "significant" enough statistically to allow certain assumptions about cost-influencing variables. The hypotheses and results of these analyses are summarized below.

---

[1] "Mean values" here refers to "average" per diem rates of, for instance, group homes serving six people compared to average rates for other-size facilities.

A. Locational Factors

H_{01}: There are no differences in the per diem rates for community ICF-MRs between Minnesota's 13 economic development regions. (1)

According to the one-way analysis of variance test, there were significant differences ($p < .01$) in the per diem rates of facilities located in the various regions of the state. Facilities operating in the seven-county Minneapolis-St. Paul region had the highest mean per diem rate ($49.60). The lowest average per diems were found in regions Six E ($30.80), Two ($36.00), One ($36.10), and Seven W ($36.50). The analysis of variance and table of means and standard deviations are presented in Tables 3 and 4. This finding is similar to the earlier study which also reported that the highest mean per diem was found in Region Eleven; the lowest in Region Six.

Table 3
Summary Analysis of Variance of Minnesota
ICF-MR Per Diem Rates by Region: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	F Score
Between groups	12	7,194	600	4.48[a]
Within groups	217	29,033	134	
TOTAL	229	36,227		

[a] $p < .01$.

Table 4
ICF-MR Mean Per Diems by Region: 1980

Region	Mean	Standard Deviation	Number of Facilities
One	$36.10	10.60	8
Two	$36.00	4.20	3
Three (Duluth)	$40.60	8.30	27
Four (Moorhead)	$39.00	8.50	24
Five	$43.60	4.70	3
Six E	$30.80	5.10	10
Six W	$48.00	6.10	3
Seven E	$47.30	13.50	3
Seven W (St. Cloud)	$36.50	9.80	14
Eight	$47.00	14.10	12
Nine (Mankato)	$45.60	8.40	13
Ten (Rochester)	$47.20	16.70	24
Eleven (Mpls.-St. Paul)	$49.60	12.50	86

Pooled standard deviation = 11.60.

H_{02}: There is no relationship between per diem rates of facilities and their location in an urban or nonurban area. (2)

Facility per diems were also examined by urban and nonurban location. An urban area, according to the Census Bureau (1982), ". . . comprises an incorporated place and densely settled surrounding area that together have a minimum population of 50,000." There are seven urban areas in Minnesota: Duluth, Moorhead, East Grand Forks, LaCrescent, Rochester, St. Cloud, and the Minneapolis-St. Paul metropolitan area.

The national study of group home per diems (Wieck & Bruininks, 1980) indicated that there were no significant differences between per diems of metropolitan (SMSA) facilities and per diem rates of facilities which were located outside of a metropolitan area. The earlier study of Minnesota facilities using 1979 data indicated, however, that facilities in the Minneapolis-St. Paul area were operating at higher rates. The current study uses a more detailed definition of metropolitan location and indicates that, again, there were significant differences ($p < .01$) between facilities located in urban areas and those established outside of urban settings. The average per diem of facilities in urban areas ($48.30) was 17% higher than the average per diem of ICF-MRs in nonurban areas ($41.20). Part of these cost differences may be attributable to differences in the cost of living between urban and nonurban areas. This analysis did not make any adjustments to account for these possible differences. Tables 5 and 6 present the summary of analysis of variance test and the table of means and standard deviations.

Table 5
Summary Analysis of Variance of Minnesota ICF-MR Per Diem Rates by Urban/Nonurban Location: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	2,831	2,831	19.33[a]
Within groups	228	33,396	146	
TOTAL	229	36,227		

[a] $p < .01$.

Table 6
ICF-MR Mean Per Diems by Urban/Nonurban Location: 1980

Location	Mean	Standard Deviation	Number of Facilities
Urban	$48.30	12.8	104
Nonurban	$41.20	11.5	126

Pooled standard deviation = 12.1.

B. Organizational Factors

Eight organizational factors were examined in this study for their probable impact upon per diem rates: (1) facility size, (2) licensed capacity, (3) occupancy rate, (4) staff-resident ratio,

(5) profit/nonprofit status, (6) system affiliation, (7) type of license, and (8) years of operation.

> $H_{0\,3}$: There is no relationship between per diem rates of residential services and facility size. (3)

For the purposes of this study, "size" is distinct from "licensed capacity" and refers to the actual number of residents present in the facility--although because Minnesota ICF-MRs typically operate very close to capacity, the difference between size and capacity is usually minimal.

Facilities were grouped into six size categories: (1) 6 or fewer residents, (2) 7 to 12 residents, (3) 13 to 16 residents, (4) 17 to 31 residents, (5) 33 to 64 residents, and (6) 65 or more residents.

There were significant differences ($p < .01$) in the per diem rates according to these size categories. The highest per diem rates were associated with ICF-MRs serving 6 or fewer residents (typically newer facilities) and larger ICF-MRs which served more than 16 people. The lowest average per diem was found in the very largest facilities (typically older facilities). Tables 7 and 8 present the summary analysis of variance and the table of means and standard deviations.

Table 7
Summary Analysis of Variance of Minnesota ICF-MR
Per Diem Rates by Size Categories: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	5	3,043	609	4.33[a]
Within groups	224	33,184	148	
TOTAL	229	36,227		

[a] $p < .01$.

Table 8
ICF-MR Mean Per Diems by Size Categories: 1980

Size Category	Mean	Standard Deviation	Number of Facilities
6 or fewer residents	$47.50	9.6	77
7 to 12 residents	$42.60	12.3	73
13 to 16 residents	$39.40	9.2	43
17 to 32 residents	$48.00	17.9	9
33 to 64 residents	$49.70	20.2	22
65 or more residents	$37.70	10.8	6

Pooled standard deviation = 12.2.

H_0: There is no relationship between per diem rates of residential services and licensed capacity. (4)

ICF-MRs in Minnesota typically operate at or near licensed capacity (approximately 98%). The results of a one-way analysis of variance were very similar to the previous analysis of size categories. There were significant differences ($p < .01$) in the per diem rates according to groupings of facilities by licensed capacity. Again, the trend was toward higher per diem rates in small facilities, decreasing per diem rates in midsize facilities, and then increasing rates as facility licensed capacity increased. Tables 9 and 10 present the summary of the analysis of variance test and the table of means and standard deviations.

Table 9
Summary Analysis of Variance of Minnesota ICF-MR Per Diems by Licensed Capacity: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	F Score
Between groups	5	2,820	564	3.78[a]
Within groups	224	33,407	149	
TOTAL	229	36,227		

[a] $p < .01$.

Table 10
ICF-MR Mean Per Diems by Licensed Capacity: 1980

Licensed Capacity	Mean	Standard Deviation	Number of Facilities
6 or fewer residents	$47.50	9.6	77
7 to 12 residents	$42.10	11.8	71
13 to 16 residents	$40.40	10.4	45
17 to 32 residents	$46.30	18.3	8
33 to 64 residents	$50.30	20.4	22
65 or more residents	$39.30	10.8	7

Pooled standard deviation = 12.2.

H_{05}: There is no relationship between per diem rates of residential services and occupancy rate. (5)

A one-way analysis of variance test did not reveal any significant differences among facility per diem rates when facilities were compared by occupancy rate, although the average per diem rate for the 12 facilities which reported occupancy rates of 90% or less was more than 13% higher ($50.10) than the average rate for the remaining 218 facilities ($44.11). Statewide, community ICF-MRs operated at 98% of their licensed capacity during 1980. The lowest occupancy rate was 75%; the highest was 100%.

H_{06}: There is no relationship between facility per diem rate and the direct care staff-resident ratio. (6)

The staff-resident ratio is calculated by dividing the number of direct care staff (full-time equivalent) by the number of residents.

Previous studies have indicated that per diem rates (cost) are greatly influenced by personnel costs. The number and type of staff are greatly influenced in turn by several factors which make it hard to identify cause-effect relationships with precision. Some of those factors are resident characteristics and functioning levels, types of services provided, and regulatory standards for staffing patterns.

In this study, facilities were grouped according to five categories based upon staff-resident ratios: (1) less than 0.30; (2) 0.30 to 0.49; (3) 0.50 to 0.69; (4) 0.70 to 0.99; and (5) greater than 1.00. The analysis indicated that there were significant differences ($p < .01$) among facilities when compared by staff-resident ratios. Predictably, the lowest per diems were associated with facilities which had the lowest ratios. These ICF-MRs also tended to be both larger and older than facilities with higher staff-resident ratios. Tables 11 and 12 summarize the results of the one-way analysis of variance test.

Table 11
Summary Analysis of Variance of Minnesota ICF-MR
Per Diems by Staff-Resident Ratio: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	17,210.0	4,302.5	50.90[a]
Within groups	225	19,017.1	84.5	
TOTAL	229	36,227.1		

[a] $p < .01$.

Table 12
Mean Per Diems of ICF-MRs
by Staff-Resident Ratio: 1980

Staff-Resident Ratio	Mean	Standard Deviation	Number of Facilities
Less than .30	$30.67	4.22	14
.30 to .49	$37.79	7.61	69
.50 to .69	$43.57	7.07	90
.70 to .99	$52.57	13.60	37
Greater than .99	$65.65	14.04	20

Pooled standard deviation = 9.19.

H_{07}: There is no relationship between per diem rates of residential services and profit/nonprofit status. (7)

A one-way analysis of variance test did not reveal any significant differences in per diem rates when facilities were compared according to profit/nonprofit status. The average per diem rate for proprietary facilities ($44.00) was only slightly lower than the mean per diem rate for nonprofit homes ($44.90). Tables 13 and 14 summarize the results of the one-way analysis of variance test and table of means and standard deviations.

Table 13
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Profit/Nonprofit Status: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	38	38	0.24
Within groups	228	36,189	159	
TOTAL	229	36,227		

Table 14
Mean Per Diems of Minnesota ICF-MRs
by Profit/Nonprofit Status: 1980

Type	Mean	Standards Deviation	Number of Facilities
Profit	$44.00	11.9	124
Nonprofit	$44.90	13.6	106

Pooled standard deviation = 12.6.

H_{08}: There is no relationship between per diem rates of residential services and system affiliation. (8)

For the purposes of this study, a facility was identified as a member of a system if the organization which owned the home also owned at least one other ICF-MR facility in Minnesota. A facility which was owned by an organization with other nursing or boarding homes, or out-of-state facilities was not identified as being a member of a system. During 1980, the number of beds within individual systems ranged from a low of 12 to over 460. Over two-thirds (68.7%) of the 230 facilities were members of a system in 1980.

No significant differences ($p < .01$) were found between facilities which were members of a system and those which were not--significant differences were, however, indicated within the $.05 < p < .10$ range. The average per diem for a nonsystem facility was $42.10, compared to $45.50 for facilities affiliated with a parent organization. Tables 15 and 16 present a summary of the results of the one-way analysis and table of means and standard deviations. The results are similar to those reported in the previous cost study and corroborate the findings of Wieck and Bruininks' national study (1980) which also reported higher per diems for facilities which were members of a system.

Table 15
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by System Membership: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	575	575	3.68
Within groups	228	35,652	156	
TOTAL	229	36,227		

Table 16
Mean Per Diems of ICF-MRs by System Membership: 1980

Type of Membership	Mean	Standard Deviation	Number of Facilities
System member	$45.50	12.1	158
Not member of system	$42.10	13.3	72

Pooled standard deviation = 12.5.

$H_{0}9$: There is no relationship between per diem rates of residential services and type of license (Class A and Class B). (9)

ICF-MRs in Minnesota are licensed as either Class A or Class B facilities depending upon the mobility and self-preservation skills of the residents (i.e., their ability to egress from the building during an emergency). Class B facilities are for people who do not possess self-preservation skills. A Class B license may require certain structural accommodations and/or staffing patterns.

The one-way analysis of variance test indicated significant differences ($p < .01$) in the per diem rates of Class B facilities when compared to per diems for ICF-MRs licensed as Class A facilities. The average per diem rate for the 26 Class B facilities ($58.23) was 36% higher than the average per diem of the 204 Class A facilities ($42.66). Class B facilities were larger (average licensed capacity = 35.7) than Class A facilities (average = 14.2). They also had a higher staff-resident ratio (average = .91) than facilities holding Class A licenses (average = .56). QAR data suggest that some of the Class B facilities are serving residents with higher dependency levels. The summary of the analysis of variance and the table of means and standard deviations are shown in Tables 17 and 18.

Table 17
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Type of License: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	5,586	5,586	41.56[a]
Within groups	228	30,641	134	
TOTAL	229	36,227		

[a] $p < .01$.

Table 18
Mean Per Diems of ICF-MRs by Type
of Facility: 1980

Type of License	Mean	Standard Deviation	Number of Facilities
Class A license	$42.66	10.6	204
Class B license	$58.23	17.6	26

Pooled standard deviation = 11.6.

H_{010}: There is no relationship between per diem rates of residential services and years of operation. (10)

Cost studies indicate that it is not uncommon for recently-opened facilities to experience disproportionately high costs as a result of start-up expenses (Piasecki et al., 1978).

Years of operation was calculated by subtracting the year and month in which the facility was first licensed by the Department of Public Welfare from the year and month of the facility's 1980 fiscal year end. The years of operation were categorized into five groups: (1) less than 1.0 year; (2) 1.0 to 3.0 years; (3) 3.1 to 5.0 years; (4) 5.1 to 8.0 years; and (5) longer than 8.0 years.

The one-way analysis of variance revealed significant differences ($p < .01$) among the groups. Higher per diems were associated with more recently established homes; lower per diems with older facilities. Most new ICF-MR homes in Minnesota are smaller facilities. In 1980, the average number of years of operation for a six-bed facility was 3.7 years. A facility licensed to serve more than 32 residents had been in operation for more than 7.8 years on the average. Increased financing and construction costs in recent years may contribute to the higher operating expenses of newer facilities. Tables 19 and 20 summarize the results of the analysis of variance test and present the table of means and standard deviations.

Table 19
Summary Analysis of Variance of Minnesota ICF-MR
Per Diems by Years of Operation: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	3,871	968	6.73[a]
Within groups	225	32,356	144	
TOTAL	229	36,227		

[a] $p < .01$.

Table 20
Mean Per Diems of ICF-MRs by Years of Operation: 1980

Number of Years	Mean	Standard Deviation	Number of Facilities
Less than 1.0 year	$52.10	13.1	13
1.0 to 3.0 years	$49.20	12.9	45
3.1 to 5.0 years	$46.00	11.6	74
5.1 to 8.0 years	$39.90	12.2	77
Longer than 8.0 years	$40.30	9.3	21

Pooled standard deviation = 12.0.

C. Resident Factors

Six variables related to resident characteristics or functioning level were compared against per diem rates: (1) average age of residents; (2) percentage of residents who are severely or profoundly mentally retarded; (3) percentage of residents who are completely fed; (4) percentage of residents with behavior problems, (5) percentage of residents who are not toilet trained; and (6) percentage of residents who are nonambulatory. The level of resident dependency level suggests varying levels of direct care services and increased staffing ratios; hence, increased costs. According to the QAR data, 12 facilities (all Class B) accounted for nearly all of the residents who were reported to have higher levels of dependency in the areas of feeding and ambulation.

$H_{0 11}$: There is no relationship in the per diem rates of residential services and the age of residents. (11)

A one-way analysis of variance test was run on facilities categorized by the average age of their residents. Five age groups were defined: (1) less than 16 years; (2) 16 to 25 years; (3) 26 to 35 years; (4) 36 to 45 years; and (5) greater than 45 years of age. Significant differences ($p < .01$) were revealed by the analysis. Like the previous study, an inverse relationship between age and per diem rate was evident. Facilities serving children had the highest per diem rates (63.00); facilities whose residents averaged more than 45 years of age had the lowest per diems (38.00). The results of the one-way analysis and the table of means and standard deviations are shown in Tables 21 and 22.

Table 21
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Average Age of Residents: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	8,040	2,010	16.04[a]
Within groups	225	28,187	125	
TOTAL	229	36,227		

[a] $p < .01$.

Table 22
Mean Per Diems of Minnesota ICF-MRs
by Average Age of Residents: 1980

Average Age	Mean	Standard Deviation	Number of Facilities
Less than 16 years	$63.00	14.4	11
16 to 25 years	$49.90	13.9	52
26 to 35 years	$44.70	11.6	68
36 to 45 years	$39.40	7.9	73
Greater than 45 years	$38.80	10.4	26

Pooled standard deviation = 11.2.

H_{012}: There is no relationship between per diem rates of residential services and the proportion of residents who are severely or profoundly mentally retarded. (12)

The proportion of residents who were classified as severely or profoundly mentally retarded was calculated for each facility using QAR data. Significant differences ($p < .01$) were indicated by the results of the one-way analysis of variance test. The 31 facilities which reported that 75% to 100% of their residents were severely or profoundly retarded had the highest per diems. Tables 23 and 24 present the analysis of variance summary and table of means and standard deviations.

Table 23
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Severely or Profoundly Mentally Retarded: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	6	3,141	523	3.53[a]
Within groups	223	33,086	148	
TOTAL	229	36,227		

[a] $p < .01$.

Table 24
Mean Per Diems of ICF-MRs by Proportion of Residents Severely or Profoundly Mentally Retarded: 1980

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$43.30	11.3	59
6 to 9 percent	$42.30	6.6	10
10 to 19 percent	$45.50	17.3	17
20 to 39 percent	$41.70	9.7	46
40 to 49 percent	$43.20	10.3	31
50 to 74 percent	$43.00	12.8	36
75 to 100 percent	$53.50	15.6	31

Pooled standard deviation = 12.2.

H_{013}: There is no relationship between per diem rates of residential services and the proportion of residents who must be completely fed. (13)

Resident dependency data were again calculated from Department of Health records. Higher dependency levels suggest greater staffing ratios. Facilities were categorized according to the proportion of residents who must be completely fed. Most facilities (N = 219; 95%) reported that 5% or fewer of their residents required complete feeding. The results of the one-way analysis indicated significant differences ($p < .01$). Facilities with higher dependency levels had higher per diem rates. The results of the analysis and the table of means and standard deviations are reported in Tables 25 and 26.

Table 25
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Completely Fed: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	3	8,896	2,965	24.52[a]
Within groups	226	27,331	121	
TOTAL	229	36,227		

[a] $p < .01$.

Table 26
Mean Per Diems of ICF-MRs by Proportion of Residents Completely Fed: 1980

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$43.20	11.0	219
6 to 19 percent	$50.70	12.1	4
20 to 39 percent	$82.80	13.1	3
More than 39 percent	$76.10	10.6	4

Pooled standard deviation = 11.0.

H_{014}: There is no relationship between per diem rates of residential services and the proportion of residents who have severe behavior problems. (14)

Facilities were classified into five groups according to the proportion of residents who were reported in the QAR survey as having severe behavior problems.[1] Significant differences ($p < .01$) were indicated by the one-way analysis of variance test. Facilities reporting that more than 35% of the residents had severe behavior problems had the highest per diems. Tables 27 and 28 summarize the results of the one-way analysis of variance.

Table 27
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents with Severe Behavior Problems: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	5,302	1,325	9.64[a]
Within groups	225	30,925	137	
TOTAL	229	36,227		

[a] $p < .01$.

Table 28
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents with Severe Behavior Problems: 1980

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$43.70	9.6	59
6 to 19 percent	$41.30	11.7	68
20 to 34 percent	$42.10	11.6	61
35 to 49 percent	$49.80	13.0	18
More than 49 percent	$56.90	15.5	24

Pooled standard deviation = 11.7.

---

[1] Severe behavior problems were defined as ". . . disturbs others/runs away, aggressive verbally, threatens, steals, destructive; assaultive/self-injurious behaviors."

H_{015}: There is no relationship between per diem rates of residential services and the proportion of residents who are not toilet trained. (15)

Facilities were categorized according to the proportion of residents who were not toilet trained. Over 95% (N = 220) of the facilities reported in the QAR survey that 2% or fewer of their residents were not toilet trained. The remaining ten facilities, while still reporting low proportions of residents who were not toilet trained, had higher per diem rates. The results of the one-way analysis which indicated significant differences ($p < .01$), are reported in Tables 29 and 30.

Table 29
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Not Toilet Trained: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	3	2,047	682	4.51[a]
Within groups	226	34,180	151	
TOTAL	229	36,227		

[a] $p < .01$.

Table 30
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Not Toilet Trained: 1980

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 3 percent	$43.90	11.9	220
3 to 5 percent	$56.20	23.7	5
6 to 7 percent	$79.70	0.0	1
More than 8 percent	$48.30	18.9	4

Pooled standard deviation = 12.3.

H_{016}: There is no relationship between per diem rates of residential services and the proportion of residents who are nonambulatory. (16)

QAR data were used to group facilities according to the proportion of residents who were nonambulatory: (1) less than 10%; (2) 10% to 19%; (3) 20% to 39%; and (4) more than 39%. Again, nearly 95% (N = 214; 93%) of the facilities reported low proportions of nonambulatory residents. The results of the one-way analysis test indicated significant differences ($p < .01$) and are reported in Tables 31 and 32.

Table 31
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Who Are Nonambulatory: 1980

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	3	8,497	2,832	23.08[a]
Within groups	226	27,730	123	
TOTAL	229	36,227		

[a] $p < .01$.

Table 32
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Who Are Nonambulatory: 1980

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 10 percent	$43.00	10.9	214
10 to 19 percent	$51.10	16.1	4
20 to 39 percent	$50.90	10.8	4
More than 39 percent	$75.50	14.2	8

Pooled standard deviation = 11.1.

V. COST-FUNCTION ANALYSIS

The first portion of this study involved the use of a statistical technique called one-way analysis of variance which defined groups of facilities according to selected variables, and compared mean per diems of groups based only upon those single factors. Cost factors, however, are often interrelated; and two or more variables acting together may influence the cost of residential care services.

The second objective of this study will be to develop an explanation of cost relationships using a cost-function approach. A cost-function is the testing of statistical relationships between inputs (independent variables such as facility location or staff-resident ratios) and cost (the dependent variable) using multiple regression techniques. Multiple regression makes it possible to evaluate the influence specific variables may have upon cost while at the same time accounting for the possible impact of several other variables.

The dependent variable in this analysis was per diem rate. Twenty independent variables were utilized as predictors of cost:

1. Region;
2. Urban/Nonurban Location;
3. Profit/Nonprofit Status;
4. Membership in a System;
5. Total Licensed Bed Capacity of the System;
6. Management Compensation--"top management" compensation as a proportion of total operating expenses;
7. Current Ratio--the ratio defined by dividing a facility's current assets by its current liabilities;
8. Number of Direct Care Staff--full-time equivalent;
9. Interest Expense on Working Capital Loans--defined as a proportion of total operating expenses;
10. Fixed Cost Ratio--fixed costs such as administration, property, and earnings allowance as a proportion of total operating expenses;
11. Consultant Contract Expenses--resident-related consultant contracts and in-service training for staff;
12. Facility Size--number of residents;
13. Occupancy Rate;
14. Staff-Resident Ratio;
15. Years of Operation;
16. Average Age of Residents;
17. Percentage of Residents Severely or Profoundly Retarded;
18. Percentage of Residents with Behavior Problems;
19. Percentage of Residents Not Toilet Trained;
20. Class A or Class B Licensure.

Three variables from the one-way analysis of variance were omitted because of their high degree of correlation with other variables. The factors which were not included in this portion of the analysis were: licensed capacity (very similar to size) and percentage of residents completely fed or nonambulatory (which were correlated with other dependency variables).

Several variables were added to the regression equation because they are related to cost. While these variables may not appear as significant in a one-way analysis, taken together they may help explain variations in per diem rates. For instance, a low current ratio may indicate a need to borrow money (hence, interest expenses) in order to finance current obligations. A high fixed cost ratio may suggest an inability to contain or reduce certain expenditures (e.g., property and plant) in the short-run.

The regression analysis indicated that nine of the twenty variables were statistically significant predictors of per diem cost. Eight variables were significant at the $p < .01$ level: proprietary status, system capacity, number of direct care staff (full-time equivalent), size (inversely related), staff-resident ratio, years of operation (inversely related), age of residents (inversely related), and resident behavior problems. The cost variable "region" was significant at the $p < .10$ level. The overall regression equation accounted for 77.4% of the variance in per diem.

In a second analysis, facilities were divided into two groups: (1) facilities serving 12 or fewer residents and (2) facilities serving more than 12 residents. A regression analysis was then performed separately on each of these groups.

The regression equation for facilities serving 12 or fewer residents indicated that the twenty variables accounted for 69.4% of the variance in per diems. Eight variables were statistically significant predictors of per diem. Five variables were significant at the $p < .01$ level: proprietary status, system capacity, years of operation, resident age, and resident behavior problems. Region and severe/profound retardation were significant at the $p < .05$ level. Staff-resident ratio was significant at the $p < .10$ level.

In the regression analysis for facilities serving more than 12 people (ranging from 13 to 171 residents), the equation accounted for 89.1% of the variation in per diems. Eight of the twenty variables were statistically significant. System capacity, staff-resident ratio, years of operation, and behavior problems were significant at the $p < .01$ level. Consultant contracts were significant at the $p < .02$ level. Occupancy rate was significant at the $p < .05$ level, and direct care staff (full-time equivalent) and Class A/Class B licensure were significant at the $p < .10$ level.

Table 33 summarizes the significant variables identified by these regression analyses and their relationship (correlation) with per diem rates.

Table 33
Summary of Regression Results: Significant Variables

Regression Analysis	Significant Variable	p Level	Relationship to Per Diem
Overall: N = 230 R^2 = 77.4	Region	.10	positive
	Proprietary status	.01	positive
	System capacity	.01	positive
	Direct care staff (FTE)	.01	positive
	Size	.01	inverse
	Staff-resident ratio	.01	positive
	Years of operation	.01	inverse
	Age of residents	.01	inverse
	Behavior problems	.01	positive
Facility Size (12 or fewer residents): N = 150 R^2 = 69.4	Region	.05	positive
	Proprietary status	.01	positive
	System capacity	.01	positive
	Staff-resident ratio	.10	positive
	Years of operation	.01	inverse
	Age of residents	.01	inverse
	Behavior problems	.01	positive
	Level of retardation	.05	positive
Facility Size (13 or more residents): N = 80 R^2 = 89.1	System capacity	.01	positive
	Direct care staff (FTE)	.10	positive
	Consultant contracts	.02	positive
	Occupancy rate	.05	positive
	Staff-resident ratio	.01	positive
	Years of operation	.01	inverse
	Behavior problems	.01	positive
	Class A/B licensure	.10	positive

FTE = Full-Time Equivalent.

VI. SUMMARY OF FINDINGS

The one-way analysis of variance test revealed the following results when per diem rates were examined according to several facility and resident characteristics:

A. Region

There were significant differences ($p < .01$) in the per diems of ICF-MRs located in Minnesota's 13 economic development regions. The highest mean per diem rates were found in the Minneapolis-St. Paul metropolitan region ($49.60); the lowest rates were found in regions Six E ($30.80), Two ($36.00), One ($36.10), and Seven W ($36.50).

B. Urban/Nonurban Location

According to the Census Bureau, there are seven major "urban" areas in Minnesota: Duluth, Moorhead, East Grand Forks, LaCrescent, Rochester, St. Cloud, and Minneapolis-St. Paul. Facilities operating in those seven areas had per diems ($48.30) which were 17% higher than the average per diem rate ($41.20) for facilities operating in nonurban areas.

C. Size

Like the earlier study, a U-shaped relationship between size and per diem costs was found. There was a significant difference ($p < .01$) in per diems by size categories. The highest per diem rates were associated with ICF-MRs serving six or fewer residents (typically newer facilities) and larger ICF-MRs which served more than 16 people. The lowest mean per diem was associated with the group of facilities (N = 6) which served 65 or more residents.

The relatively higher per diems of smaller ICF-MRs may be attributable, in part, to facility age. Most new developments are smaller facilities; hence, higher construction, remodeling, and financing expenses. The average number of years of operation for six-person ICF-MRs in 1980 was 3.7 years compared to more than 8.0 years for facilities serving 33 to 64 people, and 7.2 years for facilities with more than 65 residents.

D. Licensed Capacity

Since ICF-MRs typically operate at or near licensed capacity (98% occupancy), the results of the one-way analysis of variance were similar to the results when categorized by size (number of residents). Higher per diems were associated with smaller facilities, decreasing per diems for seven- to sixteen-person facilities, and then increasing per diem rates as facility licensed capacities increased.

E. Occupancy Rate

The one-way analysis did not reveal any significant differences when groups of facilities were compared by occupancy rate, primarily because in Minnesota ICF-MRs operate at similar rates of resident occupancy--98%, on the average.

F. Staff-Resident Ratio

Significant differences ($p < .01$) were indicated when facilities were compared by categories of staff-resident ratios. Facilities with the lowest staff-resident ratios (less than .30) had the lowest mean per diem ($30.67). As staff-resident ratios increased, mean per diems increased. The highest mean per diem ($65.65) was reported for facilities with staff-resident ratios of 1.00 or more.

G. Proprietary Status

The analysis did not reveal any significant differences when facilities were compared by profit/nonprofit status. The mean per diem for profit facilities ($44.00) was slightly lower than the mean per diem rate for nonprofit facilities ($44.90).

H. Membership in a System

No significant differences ($p < .01$) were found when comparing per diem rates of facilities which were members of a system and those which were not affiliated with a system (significant differences were indicated at the $.05 < p < .10$ level, however). The average per diem for nonsystem facilities was $42.10; the average system ICF-MR per diem was $45.50. Over two-thirds of the 230 facilities in this study were members of a system. The number of beds within individual systems ranged from a low of 12 to over 460 in 1980.

I. Class A/Class B Licensure

The mean per diem rate ($58.23) for the 26 Class B facilities in this study was 36% higher than the mean per diem rate ($42.66) for the 204 Class A facilities. The difference was statistically significant ($p < .01$). Class B facilities were larger (mean = 35.7 beds) than Class A facilities (mean = 14.2 beds); and their staff-resident ratios were higher (mean = .91 compared to .56 for Class A ICF-MRs).

J. Years of Operation

The one-way analysis of variance indicated significant differences ($p < .01$) among facility per diem rates when compared by years of operation. Facilities operating for less than one year had the highest per diem rates (mean = $52.10). As the number of years of operation increased, mean per diem rates decreased. For 1980, an inverse relationship existed between facility size and years of operation: the smallest ICF-MRs averaged 3.7 years of operation; the largest 7.2 to 8.0 years of operation.

K. Age of Residents

Statistically significant differences ($p < .01$) were evident when facility per diem rates were compared according to categories defined by average age of residents. Like the previous study, facilities serving children and teenagers (less than 16 years) operated with the highest mean per diem ($63.00). As the average age of residents increased, the mean per diem decreased. The lowest mean per diem was reported for facilities whose residents averaged more than 45 years of age ($38.80).

L. Proportion of Residents Severely or Profoundly Mentally Retarded

The one-way analysis indicated significant differences ($p < .01$) when facility per diems were compared according to the proportion of residents classified as severely or profoundly retarded. The highest mean per diem ($53.50) was associated with the 31 facilities which reported that more than 75% of their residents were severely or profoundly retarded. The lowest mean per diem ($41.70) was for facilities in which 20% to 39% of their residents were classified severely or profoundly mentally retarded. Facilities reporting a proportion less than 6% had a mean per diem of $43.30.

M. Resident Dependency Levels

Although most facilities reported low proportions of residents who were not toilet trained, who had to be completely fed, or who were nonambulatory, there was a positive and direct relationship between dependency level and per diem. ICF-MRs which serve higher proportions of residents who must be completely fed, are nonambulatory, are not toilet trained, or have severe behavior problems operated at higher per diem rates. The differences in mean per diem rates of facilities compared by these variables were statistically significant ($p < .01$).

Mean per diem rates by proportion of residents not toilet trained ranged from $43.90 (2% or less) to $79.70 (6% to 7%). By proportion of residents who are completely fed, the range was from $43.20 (less than 6%) to $82.80 (20% to 39%). The highest mean per diem rate according to proportion of nonambulatory residents was $75.50 (40% or more); the lowest was $43.00 (9% or less). Facilities reporting the lowest proportion of residents with severe behavior problems (less than 6%) operated with a mean per diem rate of $43.70. The lowest rate was $41.30 (6% to 19%); the highest mean per diem was $56.90 (50% or more).

N. Multiple Factors

Twenty variables were considered simultaneously (multiple regres--sion), rather than individually, to estimate their impact upon ICF-MR per diem rates. Nine variables were identified as statistically significant predictors of ICF-MR costs: (1) region, (2) proprietary status, (3) system capacity, (4) number of direct care staff, (5) size (inversely related), (6) staff-resident ratio, (7) years of operation (inversely related), (8) age of residents (inversely related), and (9) resident behavior problems.

A regression analysis using the same twenty variables for facilities with 12 or fewer residents suggested eight statistically significant cost predictors: region, proprietary status, system capacity, staff-resident ratio, behavior problems, years of operation, resident age, and level of retardation. The regression equation for facilities serving more than 12 people yielded eight statistically significant variables: system capacity, direct care staff (full-time equivalent), consultant contracts, occupancy rate, staff-resident ratio, years of operation, behavior problems, and Class A/Class B licensure.

VII. POLICY ISSUES

The data presented in this study are not definitive but statistical presentations of information derived from ICF-MR cost reports and Health Department records. The data are presented here to help define problems, clarify trends, and outline some basic issues regarding community residential care services. Although cost remains a major consideration as both the state and federal governments struggle with substantial budget deficits, it is not the only consideration. Normalization, appropriateness of services, and the movement of developmentally disabled people into less restrictive living environments must also remain high priorities.

A. The Role of ICF-MRs

This study focused upon ICF-MR residential services. While other states chose to maintain ICF-MR certification for medically oriented services, Minnesota became one of the first states to proactively develop smaller, community-based ICF-MRs as an alternative to institutional care. Consequently, the number of community ICF-MR certified beds in Minnesota has increased substantially since the mid-1970s. Programmatic and fiscal circumstances now dictate that further expansion of the system should occur only after a thoughtful analysis of the need for more ICF-MR capacity, a review of the role of ICF-MR services, and an examination of alternative care models. These analyses should consider several factors:

B. Long-Term Financial Implications

Like state institutions, ICF-MR facilities represent major capital investments. The nature and extent of those property-related investments are reflected in DPW Rule 52 reimbursement standards. Substantial amounts of federal, state, and county resources are tied to the construction and maintenance of physical structures. The long-term implications of those types of financial commitments need to be explored fully.

C. Meeting Individuals' Needs

Overreliance on construction of facilities or the maintenance of an already existing service may inadvertantly direct public resources to meet the needs of a system (bricks and mortar) rather than the needs of people. To be responsive to an ever-changing profile of clients, the service system itself must adapt and be capable of change. ICF-MR facilities should be viewed as one type of service within a broader array of programs and services available to people with developmental disabilities. Those services should remain flexible and promote, wherever possible, movement into more independent (usually less costly) settings. To achieve those ends, funding mechanisms should accommodate people; not programs.

D. Meeting Demands for Service

Much of the demand for community placements could be met by existing ICF-MRs if appropriate alternative services for many current ICF-MR residents were developed and adequately funded. For many people, ICF-MR services may be the most appropriate service model; for others, those levels of service may represent only one step in a process of growth and change. QAR data suggest that as many as 200 people now living in group homes are ready to move into semi-independent living settings; other estimates indicate that, with varying levels of supervision, as many as 1,000 people could be placed into foster care or SILS programs (Copeland & Iversen, 1981).

E. Size of Community Facilities

Size of facilities remains an issue. The current study indicates that the smallest facilities are not the least costly. Several mitigating factors should be considered, however. Most of the smallest ICF-MRs are relatively new facilities. Inflation and the recent increases in the costs of construction and financing may account for much of those cost differences. Additionally, people now being placed into community facilities are more likely to have lower levels of functioning and/or physical handicaps than people placed several years ago in older facilities. Higher resident dependency levels suggest higher staff-resident ratios; hence, increased costs. Finally, the literature suggests that when all factors are considered, the psychosocial and developmental needs of individual residents are more likely to be met in small, homelike residential programs, rather than in larger facilities.

F. Larger Community Facilities

The appropriateness of larger community ICF-MRs also needs to be addressed. In 1980, the ten largest facilities accounted for nearly one-quarter of the total community ICF-MR bed capacity. Some facilities exceed the size of state hospital programs. In 1980, nearly half (49%) of the people in community-based ICF-MRs lived in "group homes" with more than 32 residents.

G. Less Costly Alternatives

Community ICF-MR programs are not cheap. In fact, the costs of a community placement for a former state hospital resident may approach those of the state hospital system--when costs of day programming and support services are included. This is most true for children. Residential and day programs for children are relatively more expensive than adult programs. Consideration should be given to developing in-home support services and expanding family subsidies. Not only are these programs more cost-efficient, but they may help to forestall or alleviate the need for placements into costly institutional and ICF-MR settings.

H. Meeting Policy Objectives and Quality Services

Budget deficits and demands for cost containment have resulted in caps on reimbursement rates and, more recently, reductions in payments to providers. Moving people into SILS and developing appropriate alternative services such as adult foster care may result in more dynamic cost savings. Many alternative care models are both compatible with cost considerations and consistent with policy statements which promote normalization and least restrictive living environments.

I. Support Services

The further development of ICF-MR programs, as well as other community-based residential care programs, cannot proceed without also considering the availability and appropriateness of community support services. There are two major areas of concern: (1) the availability of day programs and (2) adequate case management services.

J. Adequate and Appropriate Day Programs

The ultimate success of residential care services is highly dependent upon the availability of appropriate day programs--programs committed and geared toward client growth and development in self-help skills, academics, vocational skills, and meaningful employment. Current opportunities are limited. Data indicate that many potential clients are waiting to participate in developmental achievement center programs. At the same time, current DAC participants are ready to move into sheltered workshops but are unable to make those transitions because there are no vacancies (*Policy Analysis Paper No. 8*, 1982). Future development of community residential programs must be closely tied to the availability of quality day programs which are capable of meeting the individual needs of residents.

K. Decentralized Services and Quality Control

The success of community programs is also dependent upon an adequate supply of case management services. In a system of care which is becoming more and more decentralized, it is imperative to have in place and operating a workable case management system (i.e., reasonable caseloads) which can help ensure that appropriate programs and services are available, that necessary services are provided, and that quality of programs is maintained. Few places in Minnesota have adequate case management services.

L. ICF-MR Services in Minnesota

The community-based ICF-MR has been and is an important component of Minnesota's system of care for developmentally disabled people. Program and budgetary circumstances, however, will require policy makers to reassess the role of the ICF-MR model and to thoughtfully plan its further development. Those analyses cannot take place without also considering other aspects of the community-based care system: day programming, appropriate funding mechanisms, adequate monitoring systems, and the development of less costly alternative services. The end result should be an even more dynamic system (array) of services which is responsive to the individual needs of developmentally disabled people in Minnesota.

VIII. REFERENCES

Bureau of the Census. 1980 census of population. PC80-1-A25 Minn. Washington, DC: U.S. Government Printing Office, February 1982.

Copeland, W. C. & Iversen, I. A. Fiscal and programmatic assessment of the DPW compliance plan and selected alternative plans for deinstitutionalization of the mentally retarded and developmentally disabled. Minneapolis: Hubert H. Humphrey Institute, December 1981.

Department of Public Welfare Rule 52 cost reports. Long-Term Care Rate Division, Department of Public Welfare. File years 1980 and 1981.

Department of Public Welfare. State institutions information brochure. St. Paul: Department of Public Welfare (publications for the years 1977 and 1981).

Developmental Disabilities Program. Policy analysis paper no. 4: Cost function analysis of Minnesota intermediate care facilities for mentally retarded (ICF-MR) per diems. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, September 1981.

Developmental Disabilities Program. Policy analysis paper no. 8: The client status of Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January 1982.

Division of Health Systems. Directory of licensed and certified health care facilities. Minneapolis: Division of Health Systems, Department of Health (publications for the years 1975 through 1982).

Medicaid reimbursement rate table (computer listing). Long-Term Care Rate Division, Department of Public Welfare, September 9, 1982.

Piasecki, J., Pittinger, J., & Rutman, I. Determining the costs of community residential services for the psychosocially disabled. Washington, DC: National Institute of Mental Health, 1978.

Social Services Division. Trends in social services. St. Paul: Social Services Division, Department of Public Welfare (quarterly publications for the years 1975 through September 1981).

Welsch V. Noot, 4-72 Civil 451 (D. Minn., Sept. 15, 1980).

Wieck, C. A. & Bruininks, R. H. The cost of public and community residential care for mentally retarded people in the United States. Minneapolis: University of Minnesota, Department of Psychoeducational Studies, 1980.

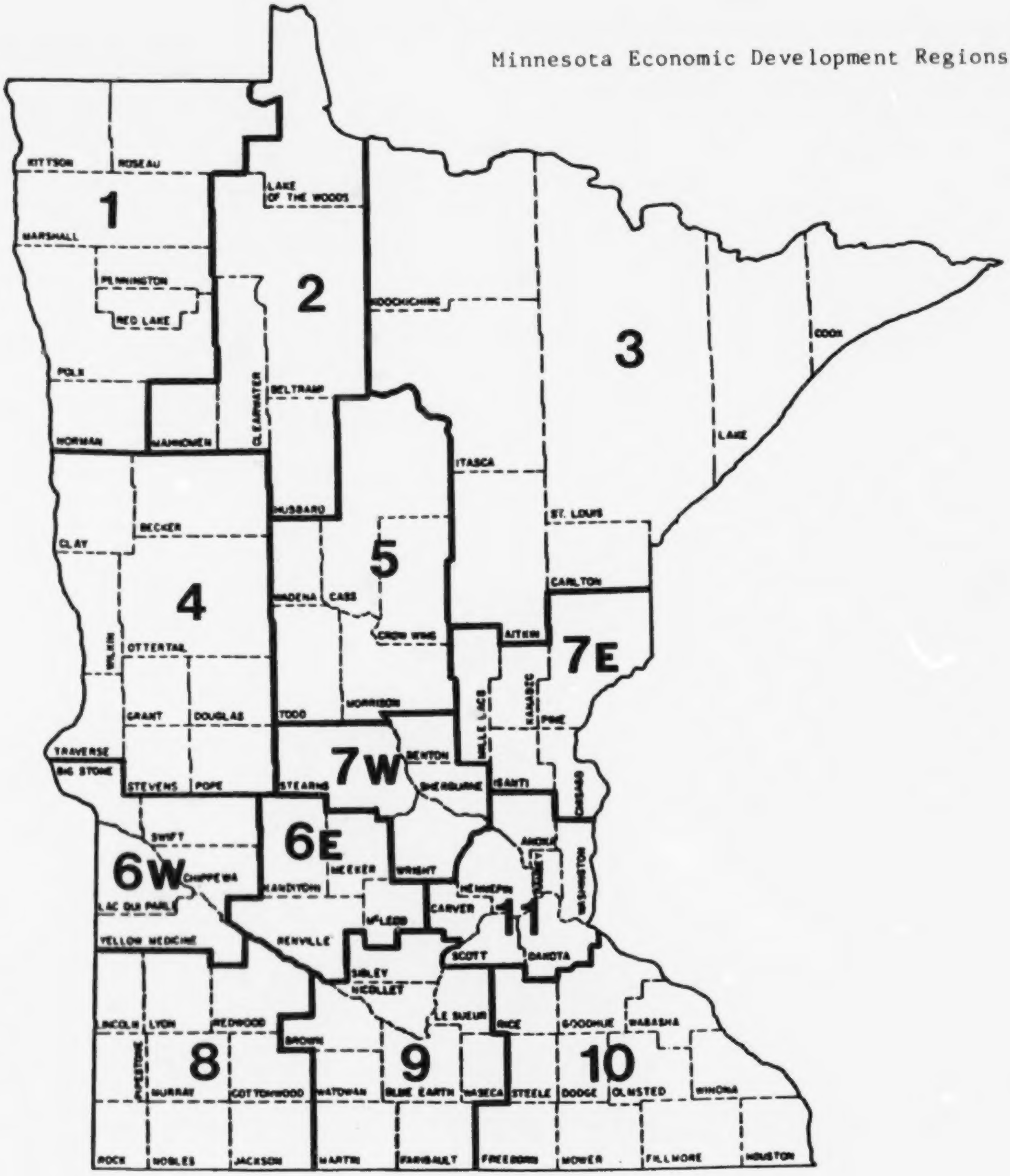
The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 15: An Update to Policy Analysis Series No. 4: Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems: 1980.* St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, March, 1983.

Minnesota Economic Development Regions


1
2
3
4
5
6E
6W
7E
7W
8
9
10
11
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
BELTRAMI
KOOCHICHING
COOK
LAKE
ITASCA
ST. LOUIS
CARLTON
HUBBARD
CLAY
BECKER
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
KANDIYOHI
MEEKER
WRIGHT
ANOKA
RAMSEY
WASHINGTON
CHIPPEWA
LAC QUI PARLE
HENNEPIN
CARVER
MCLEOD
RENVILLE
YELLOW MEDICINE
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
LINCOLN
LYON
REDWOOD
RICE
GOODHUE
WABASHA
BROWN
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 16

A STATEWIDE SUMMARY OF SHELTERED EMPLOYMENT PROGRAMS

Contents

Page

I. Introduction 1

II. Review of Literature and Historical Background 3

III. Methodology 6

IV. Results 7

Financial Results 7

Administrative Results 13

Individual Client Profile Results 23

V. Summary 27

VI. References 28

I. INTRODUCTION

This paper reports the results of a statewide study of 25 sheltered workshops. It is an extension of the study on services provided by developmental achievement centers (*Policy Analysis Papers No. 6, 7, 8, and 9*). The purpose of this study was to collect and analyze data on the fiscal and programmatic status of the workshops over a four-year period of time (federal fiscal years 1980 through 1983). Specific areas of concern were also addressed, e.g., program waiting lists, needed client services, and staffing patterns. This study was prompted by the need for detailed information to present to the Minnesota Legislature on the effects of budget reductions on vulnerable populations.

A sheltered workshop provides vocational training and/or employment to persons with disabilities. The agencies surveyed in this study primarily provide services to individuals with developmental disabilities.

Sheltered employment services vary among the 25 sheltered workshops. For the purposes of this paper, sheltered employment shall refer to the broad range of programs from external sheltered to work activity centers. The following categories represent the dimension of services offered in Minnesota:

- Vocational Evaluation (VE): A systematic and organized process employing: (a) validated work sample techniques or (b) varied subcontract work which has been related to job families and validated to industrial norms. The above methods are used, in conjunction with psychological tests, to determine employability factors, e.g., skills, aptitudes, and physical tolerance. (*DVR Certification Standards Manual*, p. 23)

- Work Adjustment Training (WAT): A program of services designed to modify vocational and personal behavior based on identified individual potential and deficits. The program utilizes a work setting supplemented by supervision and counseling. The areas covered in a work adjustment training program include: developing work habits, developing physical capacity for work, and an orientation to the job market. (*DVR Certification Standards Manual*, p. 24)

- Long-Term Sheltered Work (LTSW): Employment which is: (a) a step in the rehabilitation process for those who cannot be readily absorbed in the competitive labor market or (b) during such time as employment opportunities for those in the competitive labor market do not exist. (MINN. STAT. § 129A.01, Subd. (e))

- Work Activity (WAC): A program which utilizes manufacturing activities and other production work for the primary purpose of providing vocational skills development for the handicapped. (MINN. STAT. § 129A.01, Subd, (f))

- Skill Training (ST): A training program which prepares an individual for a specific occupation using work adjustment training techniques. (*DVR Certification Standards Manual*, p. 24)

- Work Component (WC): A work activity program which takes place within a developmental achievement center (DAC) licensed as such by the Department of Public Welfare. (*Cooperative Agreement between Department of Economic Security, DVR and Department of Public Welfare*, Draft, June 24, 1982)

- Other Programs: Other programs include placement and prevocational social services. An agency may contract with a client to seek a position in a competitive setting without work adjustment or long-term sheltered work services. Prevocational social services are programs that focus on the client's work habits (e.g., reporting on time, regular attendance, and calling in if ill) and ancillary skills (e.g., hygiene and dress).

- Vocational Services (VS): To facilitate reporting of some variables, three of the above programs (VE, WAT, and ST) have been combined within the text of this paper.

II. REVIEW OF LITERATURE AND HISTORICAL BACKGROUND

The last three decades have been a period of growth and change for sheltered workshops throughout the United States. Federal and state legislation encouraged growth in the number of clients served and in the total number of workshop programs. This legislation also facilitated changes in the client population by providing workshops with incentives to serve more severely disabled clients and those with different types of disabilities.

During the 1970s, the federal government sponsored several major studies of sheltered workshops (Greenleigh and Associates, 1975; U.S. Department of Labor (DOL), 1977, 1979; U.S. General Accounting Office, 1980). These studies gathered a considerable amount of national data on sheltered workshop services and clients, identified some major problems in the sheltered workshop service system, and made policy recommendations which addressed the identified problem areas.

Among the major findings of the studies were:

- By 1978, the national workshop population had increased to almost five times its 1968 level. A major portion of the growth occurred in work activity (WAC) programs, which accounted for almost two-thirds of the sheltered work population in 1978. (DOL, 1977, p. 35; DOL, 1979, p. 29)

- From an almost equal balance between physically and mentally handicapped persons in 1969, the workshop population shifted to being three-fourths mentally disabled (mentally retarded and/or mentally ill) persons by 1977. (DOL, 1977, p. 337; DOL, 1979, p. 29)

- The Department of Labor (1979) reported that the average hourly wage for all workshop clients was 81 cents an hour. The study found that two-thirds of the workshop clients received supplemental income or other support. (DOL, 1979, pp. 18, 59)

- Lack of suitable work in sufficient amounts was a major problem for many workshop programs; many workshops experienced difficulty in marketing products and services. (Greenleigh, 1975, pp. 29-30, 362; DOL, 1979, p. 38)

- Many workshops were substantially underutilized because of funding limitations; the size of the operating budget in many of the workshops was inadequate to support the programs. (DOL, 1977, p. 5)

- Clients moved from workshops into competitive employment at a rate of 12 to 13 percent of the total clients served annually; the placement rate for work activity clients was 7 percent. (DOL, 1977, p. 6; Greenleigh, 1975, p. 341)

- The General Accounting Office (GAO) (1980) reported that several deficiencies in states' reevaluations (required by the Rehabilitation Act of 1973) were limiting sheltered workers' opportunities for placement in competitive employment. (GAO, 1980, p. i)

These studies drew considerable attention to several important sheltered work issues. From 1978 through 1980, the Department of Health, Education and Welfare (DHEW) conducted a series of policy analysis activities designed to follow up on the recommendations of the Greenleigh and Department of Labor studies. Whitehead (1979a) reported on a number of the major policy questions addressed by DHEW, including several related to the organization of work activity centers, the provision of independent living services in workshops, the dual missions of transitional and extended employment services, the amount and types of work done in workshops, the income maintenance policies of federal programs such as SSI (Supplemental Security Income) and SSDI (Social Security Disability Insurance) and coordination of services and financial support in the workshop service system.

Whitehead summarized the actions recommended by the DHEW Task Force:

- We need to switch from the use of the term "work activities center" to think in terms of a work-oriented program of training and development rather than therapeutic, custodial type services. Legislative or regulatory changes are needed in the Fair Labor Standards Act (FLSA).

- Greater attention is needed to developing productivity and earnings of severely handicapped persons, thereby reducing their dependency on supplemental income but maintaining eligibility for the benefits of income support programs for those with special needs.

- The sheltered workshop must be recognized as an employer as well as service provider, and handicapped persons in long-term employment must be accorded status as employees rather than clients. Fringe benefits must be provided, but subsidy by government may be required. (Whitehead, 1979a, p. 40)

Several authors have used data from the national studies as a starting place for further analysis of specific sheltered work issues, particularly those related to the purpose of workshops and the benefits obtained by client/workers in workshop programs (Bellamy et al., 1981, in press; Leclair, 1976; Lilly, 1979; Whitehead, 1978, 1979b).

Bellamy et al. (1981, in press) have outlined a proposal for redesigning services by differentiating short-term transitional services leading to competitive employment from long-term structured employment opportunities for individuals who require ongoing support. Bellamy et al. advocate an emphasis on work and productivity at all service levels and a focus on work-related benefits for all consumers.

Most recently, the U.S. General Accounting Office (1982) issued a report on administration of the national vocational rehabilitation (VR)[1] program which has implications for the referral of VR clients to rehabilitation facilities. The report concluded that VR funds can be maximized by providing rehabilitation services only to individuals who have substantial handicaps to employment and can reasonably be expected to become gainfully employed.

In Minnesota, the emergence of sheltered workshops has paralleled national developments in terms of both growth and changing practices. Prior to 1954, six sheltered workshops existed in the state. Working agreements were established between DVR and 19 facilities between 1954 and 1964. During this period, several facilities began to offer vocational evaluation and work adjustment training. Two distinct types of facilities emerged--sheltered workshops and vocational centers; a few facilities combined features of both programs. In 1965, the Long Term Sheltered Work Act was passed (Minnesota Laws 1965, Chapter 283) authorizing local governments to expand the funds available for sheltered workshops (*Minnesota State Rehabilitation Services Plan*, 1980, pp. 10-11).

The period of most rapid growth in the number of individuals served in Minnesota rehabilitation facilities began in the late 1960s. Between 1970 and 1980, the number of long-term work slots increased over 500 percent, from 700 to 4,300. State funds appropriated for these slots increased from $150,000 to over $5.2 million during that period. Work activity programs began to develop in the late '60s and early '70s. In 1973, Minn. Stat. § 121.711 was amended so that DVR received expanded responsibility for work activity programs (*Minnesota State Rehabilitation Services Plan*, 1980, p. 11; *Brief History of Rehabilitation Facilities in Minnesota: 1970-1980*, p. i).

Since 1980, the legislature has funded an additional 300 slots to serve individuals leaving state institutions and Developmental Achievement Centers (DACs) as part of the *Welsch v. Levine* Consent Decree. By 1985, 300 more slots are scheduled to be in place.

During this period of rapid growth, the emphasis on the role of sheltered workshops shifted, at times, between training and job placement and long-term employment. However, both functions continue to exist in most workshops today.

---

[1] In Minnesota, the Division of Vocational Rehabilitation is located in the Department of Economic Security.

In recent years, Minnesota's sheltered workshops have experienced major changes in the disability levels and types of individuals entering their programs. In addition, changes in funding levels and sources, reporting requirements, and program standards have affected their operation. By July, 1984, all DVR-funded sheltered workshops must be in compliance with the standards established by the Commission on the Accreditation of Rehabilitation Facilities (CARF) in order to continue receiving funds.

III. METHODOLOGY

Twenty-six agencies were contacted regarding participation in the survey. Only one agency chose not to participate. Twenty-four of the participating agencies receive DVR funds to provide evaluation, training, work activity, and/or long-term sheltered employment services. One agency does not receive DVR funds but provides services similar to those of DVR-supported programs and elected to participate in the survey. The decision to survey the state's sheltered employment programs was reached in late September, 1982, in discussions between representatives of the Minnesota Association of Rehabilitation Facilities (MARF), the Developmental Disabilities Program, and the Division of Vocational Rehabilitation (DVR). Questions used in the survey were based on issues identified at the national and state levels and were also based, in part, on the 1981 survey of Minnesota's Developmental Achievement Centers in order to allow identification of issues which affect both programs. Selected sheltered workshop providers and representatives of MARF and DVR were involved in the development of the survey and reviewed the questionnaire prior to the final copy.

Agencies responded to three separate forms requesting financial, administrative, and individual information. The financial questionnaire assessed sources of revenue, agency expenditures, type of work performed, physical plant accessibility, and the average daily attendance of the programs. The administrator questionnaire assessed the distribution, wages, and turnover rates of employees, number of client hours per year, client movement and demographics, waiting lists, and program changes.

Individual questionnaires were completed on a 10 percent random sample of clients. The individual questionnaires were completed by the staff of the participating agency. To assure confidentiality, individual identification was removed from the form prior to submission of the surveys. The questionnaires assessed the client's disability, reason for referral, duration in agency programs, 1981 average wages, and the next placement level.

The survey forms were sent to participating agencies before scheduling interviews in order to allow agency staff time to collect the requested data. Surveys were mailed, and interviews began in October, 1982. The last survey was completed January 12, 1983. Both on-site and telephone interviews were conducted to achieve complete participation.

Protocols were edited and coded during December, 1982; January and February, 1983.

IV. RESULTS

A. Financial Results

The financial results section will be presented in the following order: (a) revenue, (b) expenditures,[1] (c) surplus/deficit, (d) client program time, (e) changes in work focus, (f) building accessibility, and (g) average daily attendance.

Revenue: The total revenue reported for Minnesota sheltered work facilities during 1980, 1981, 1982, and 1983 was $30,693,240; $33,987,168; $35,746,058; and $40,436,256 (estimated), respectively. These figures indicate a steady increase in revenue. However, the percentage increase is 10.7 percent compared to 12.3 percent inflation between FY 1980 and FY 1981; 5.2 percent compared to 9.7 percent inflation between FY 1981 and FY 1982;[2] and 13.1 percent compared to the estimated 5.8 percent inflation rate expected from FY 1982-83.[3] The 1983 figures are projections only and appear optimistic. In addition to inflation rates, there have been increases in the number of new workers as will be discussed later.

In 1980, government sources (county, DVR, other training fees, and DVR client service fees) accounted for 36.0 percent of all revenues. Subcontract income equaled 34.5 percent, sales income totaled 17.5 percent, while other types of support (United Way, contributions, and grants) were reported at 12.0 percent.

---

[1] Statewide totals reported in this paper differ from the Annual DVR Summary of Fiscal Data reports. Information provided for this survey comes from audited fiscal reports. This study also includes one agency not included in DVR reports and does not include one agency that is contained in DVR reports.

[2] The U.S. Department of Commerce reports the rate of inflation for the Minneapolis-St. Paul metropolitan area. The Consumer Price Index is kept only for the Twin Cities metropolitan area. There are no regional or statewide figures.

[3] The U.S. Department of Commerce does not estimate the future rate of inflation. L. R. Klein et al. (1982) provided the 5.8 percent estimation.

The revenue patterns for fiscal years 1981, 1982, and 1983 are summarized in Table 1. The shifts noted by respondents indicate a decline in government support and an increase in sales income in FY 1983.

Table 1
Sources of Revenue
(Minnesota Sheltered Employment
Programs: 1982;
100% Reporting)

Source of Revenue	FY 1981	FY 1982	FY 1983 (est.)
State	25.2%	23.7%	21.7%
County	6.9%	7.3%	7.6%
Other governmental	4.9%	5.0%	3.7%
Subcontract income	31.5%	32.9%	31.6%
Sales income	19.9%	19.1%	25.5%
Other income[a]	11.6%	12.0%	9.9%

[a] United Way, contributions, and grants.

Expenditures: The financial questionnaire separated expenditures into five categories: personnel, transportation, occupancy, production supplies, and other program expenses.

The total expenditures for each fiscal year are: 1980 ($30,404,580), 1981 ($33,700,836), 1982 ($36,146,322), and 1983 (an estimated $40,673,601).

Personnel expenses have been divided into client wages and staff wages as presented in Table 2.

Table 2
Personnel Expenses
(Minnesota Sheltered Employment Programs: 1982; 100% Reporting)

TYPE OF EXPENSE	FY 1980	FY 1981	FY 1982	FY 1983 (est.)
Staff wages	$11,531,520	$13,130,040	$14,093,750	$14,873,558
Client wages	$ 6,519,462	$ 6,993,498	$ 7,131,431	$ 7,761,510
Total taxes and fringes[a]	$ 2,448,870	$ 2,859,083	$ 3,145,399	$ 3,446,156
Subtotal of personnel expenses	$20,499,852	$22,982,621	$24,370,580	$26,081,224
Percentages of total expenses	67.6%	68.2%	67.4%	64.1%

[a] Taxes and fringe benefits for staff and clients are combined.

Transportation expenses (client, finished products, supplies, and some staff) for the respective fiscal years totaled: 1980 ($766,666), 1981 ($884,711), 1982 ($883,119), and 1983 (an estimated $929,650).

Occupancy expenses (rent, interest on mortgage, building insurance) were: FY 1980 ($3,011,969), FY 1981 ($3,095,343), FY 1982 ($3,586,766), and FY 1983 (an estimated $3,844,415).

Supplies for the production of work items for the respective fiscal years totaled: 1980 ($3,058,012), 1981 ($3,466,720), 1982 ($5,033,934), and 1983 (an estimated $6,336,051). The reader should note the direct relationship between estimated sales increases and supply expenses.

Professional fees and other program expenses which include all variable expenses not described above are: FY 1980 ($3,068,081), FY 1981 ($3,271,442), FY 1982 ($3,271,923), and FY 1983 (an estimated $3,482,261).

Surplus/Deficit: Surplus/deficit is defined as operating revenue minus expenditures. This is a simple calculation based upon stated totals which may not represent a true estimate of net worth based upon full accounting procedures. In FY 1980, there was a reported statewide surplus of $288,660. In FY 1981, the surplus dropped to $286,332. In FY 1982, the surplus turned to a deficit of $400,274; while in FY 1983, the deficit is estimated to be $237,345.

Client Program Time: Respondents were asked to estimate the average number of paid hours worked per week according to the following categories: vocational evaluation, work adjustment training, long-term sheltered work, work activity, skill training, work component, and other. (Definitions appear on pages 1 and 2.)

According to Table 3, in almost every program, clients experienced a decrease in the average number of work hours. There was a corresponding increase in the amount of "downtime" or time not working.

Table 3
Client Work Hours (Paid) Per Week
(Minnesota Sheltered Employment
Programs: 1982;
88% Reporting)

Type of Program	FY 1981	FY 1982
Vocational Evaluation:		
• Hours worked	24.2	21.6
• Agencies reporting	12	10[a]
Work Adjustment Training:		
• Hours worked	27.5	25.4
• Agencies reporting	19	19
Sheltered Work:		
• Hours worked	28.6	26.0
• Agencies reporting	22	22
Worked Activity:		
• Hours worked	22.2	20.1
• Agencies reporting	18	18
Skill Training:		
• Hours worked	33.7	26.5
• Agencies reporting	3	3
Work Component:		
• Hours worked	6.3	5.5
• Agencies reporting	15	15
Other:[b]		
• Hours worked	38.0	38.0
• Agencies reporting	1	1

[a] Two programs provided 1981 data but were unable to provide 1982 client hours.

[b] One agency reported hours of clients in a competitive program.

Changes in Work Focus: Respondents were asked to describe what production-related changes had occurred in their facilities in the last three years. A list of possible changes was presented. In rank order of mention, the following changes have occurred: (1) higher average bid amount (N = 18); (b) increase in downtime (N = 15); (c) increase in number of subcontracts (N = 14); and (d) subcontracts are of shorter duration (N = 13). Fewer facilities reported decreases in number of subcontracts (N = 7) and subcontracts of longer duration (N = 7).

Agency representatives were also asked to comment on the type of work changes that had occurred over the past five years and the anticipated work changes for the next five years. In reviewing the past, 12 agencies reported an increase in light assembly work. In looking toward the future, 15 agencies anticipated increases in light assembly work, 14 predicted growth in high technology work, and 12 are preparing for growth in service fields.

Building Accessibility: For the 25 agencies participating in this study, there were 64 buildings with 1,089,295 square feet of space. Not all the buildings are physically separate. Respondents were asked to report on exterior and interior accessibility. Buildings with exterior accessibility are those that a person who is able to operate a wheelchair can enter without help. If a person is able to operate a wheelchair and use all floors and all bathrooms without help, then the building was defined as having total interior accessibility. Partially accessible buildings are those in which some of the floors and some of the bathrooms are useable by people in wheelchairs. Table 4 presents the type of accessibility for the 64 buildings.

Table 4
Type of Building Accessibility
(Minnesota Sheltered Employment
Programs: 1982;
100% Reporting)

Building Accessibility	Number of Buildings Totally Accessible	Number of Buildings Partially Accessible	Number of Buildings Not Accessible[a]	Total Number of Buildings
Exterior	53	0	11	64
Interior	40	18	6	64

[a] Include some buildings used for warehousing materials.

Average Daily Attendance: Table 5 presents the average number of clients attending the programs in fiscal years 1980 through 1983. In FY 1982, there were 4,727 clients receiving services from the 25 agencies surveyed. Fifty-three percent (2,495) of these persons were in long-term sheltered work programs. All 25 agencies provided long-term sheltered work. Long-term sheltered work programs experienced an average yearly increase from FY 1980 through FY 1982. This pattern is expected to continue during FY 1983.

Table 5
Statewide Average Daily Attendance
(Minnesota Sheltered Employment
Programs: 1982)

	NUMBER OF CLIENTS PER DAY			
TYPE OF PROGRAM	FY 1980[a]	FY 1981[b]	FY 1982[c]	FY 1983[b]
Vocational evaluation	7.4	6.1	4.3	5.4
Work adjustment training[d]	22.2	20.5	14.4	15.0
Long-term sheltered work	90.7	95.9	99.8	102.8
Work activity	37.8	42.1	45.2	40.2
Skill training	15.8	16.0	10.6	10.0
Work component	72.5	70.2	66.9	68.9[e]
Other[f]	7.5	16.5	11.8[e]	13.8[e]
TOTAL	194.9	197.3	189.1	197.9

[a] Agencies reporting: 21 of 25. Variation is due to non-reporting, not changes in the number of programs within the state.

[b] Agencies reporting: 23 of 25. Variation is due to non-reporting, not changes in the number of programs within the state.

[c] Agencies reporting: 25 of 25.

[d] Includes information on vocational evaluation from one agency.

[e] Change from previous years includes an additional program.

[f] Other programs include placement and prevocational social services.

The reporting agencies have experienced steady declines in average daily attendance in vocational services from FY 1982 through FY 1983. Vocational evaluation and work adjustment training programs anticipate an increase in the average daily attendance during FY 1983.

During FY 1982, 13 programs provided work component services to 870 DAC clients. The 19 work activity centers had an average attendance of 858 persons.

B. Administrative Results

The administrative results section[1] will be presented as follows: (a) personnel, (b) staff training, (c) staff turnover, (d) staff wages, (e) program hours and days, (f) waiting lists, (g) client movement, (h) program changes, (i) age of clients, (j) place of residence, (k) disabilities, and (l) level of functioning.

Personnel: Respondents were asked to report the number of hours that constitute a full-time employee (FTE). Only one agency changed their FTE definition between 1980 and 1982 when staff hours were "reduced for six months due to a budget shortfall." The temporary reduction does not affect the statewide averages; therefore, the base numbers reported for all years are equivalent.

In 1982, there were 781.8 persons employed to provide sheltered work services in Minnesota (see Table 6). The total administrative staff was 144.5. The range within agencies was from only 1 administrative person up to 22 persons. This administrative number included agency directors, program coordinators, secretaries, and/or accountants. The statewide total for program staff was 424.7. Agencies ranged from 5 to 51 persons in this category. Program staff included counselors, vocational evaluators, and/or supervisors. Support staff during 1982 totaled 212.6. The range was from 0 to 31 staff. Support staff included maintenance, food service, shipping, and/or receiving personnel.

---

[1] Due to differences in individual agency accounting methods, administrative data reported by year categories may not be comparable to financial data reported by federal fiscal years.

Table 6
Type of Personnel
(Minnesota Sheltered Employment
Programs: 1982;
100% Reporting)

Type of Personnel	1980 Total	1981 Total	1982 Total	1983[a] Total (est.)
Administration	138.8	149.2	144.5	141.0
Professional/Paraprofessional	434.6	429.5	424.7	398.0
Support staff	212.4	221.1	212.6	203.3
TOTAL	785.8	799.8	781.8	742.8

[a] One agency did not provide 1983 estimations.

Staff Training: Respondents were asked to estimate the percentage of program staff that had either a bachelor's or master's degree. In 1982, the agency staff with a bachelor's degree ranged from 0.0 to 88.0 percent with an average of 22.6 percent. During the same period, the percentage of agency staff with a master's degree ranged from 0.0 to 41.0 percent with an average of 14.2 percent.

Individuals with training in vocational rehabilitation comprise 32 percent of the program staff. Other types of academic training include: psychology (21 percent), education (20 percent), sociology/social work (13 percent), and sales or business administration (14 percent).

Staff Turnover: Respondents were asked to calculate separately the rate of turnover for program, administrative, and production staff during 1981 and 1982. As shown in Table 7, the highest turnover occurred in program staff with 16.3 percent reported in 1981 and 18.2 percent reported in 1982.

Table 7
Staff Turnover Rate
(Minnesota Sheltered Employment
Programs: 1982;
100% Reporting)

	1981			1982		
TYPE OF STAFF	Mean Rate	Range	Agencies with No Turnover	Mean Rate	Range	Agencies with No Turnover
Administrative	14.8%	0 to 50%	11	12.1%	0 to 66%	12
Program	16.3%	0 to 50%	6	18.2%	0 to 66%	4
Production	14.9%	0 to 53%	6	16.2%	0 to 100%	6

The most frequently stated reasons why personnel left the agency are presented in rank order below:

1981	1982
Career changes, better positions	Career changes, better positions
Poor performance, fired	Lay-off
Lay-off	Moved
Moved	Poor performance, fired
Returned to school	Personal leave, family reasons
Retired or death	Retired, worker's compensation
Personal leave, family reasons	

The reasons are similar to other labor economic studies, particularly in the human services field. The number of staff who were laid off represent the effects of the general recessionary trends.

Staff Wages: The average hourly wage for program personnel in sheltered work facilities is presented in Table 8. Program personnel include: counselors, vocational evaluators, and work supervisors. The 1982 statewide average hourly wage was $8.08 for employees with college degrees and $5.66 for those with less than a four-year degree. These figures indicate a steady increase in wages. The percentage increase is generally less than the rate of inflation.

Table 8
Staff Wages
(Minnesota Sheltered Employment
Programs: 1982)[a]

	LESS THAN 4-YEAR DEGREE			4-YEAR DEGREE OR MORE		
YEAR	Mean Wage	Range	Number of Agencies Reporting	Mean Wage	Range	Number of Agencies Reporting
1980	$5.10	$3.63-$6.25	15	$6.96	$5.25-$8.50	18
1981	$5.42	$3.67-$6.39	18	$7.56	$5.75-$8.70	20
1982	$5.66	$4.00-$7.20	20	$8.08	$6.49-$9.46	21
1983 (est.)	$6.10	$4.15-$7.44	17	$8.47	$6.84-$9.80	19

[a] Agencies reporting varies because the data were unavailable or there were no staff in the category during the agency's year.

Program Hours and Days: Respondents were asked to provide information on the number of client hours per year for the agency. Vocational services and long-term sheltered work programs annually provide between 245 and 250 days of service. The average number of service days has decreased slightly from 1980 to 1983 (estimated). This is the result of a sharp reduction in program days in two agencies.

Some agencies have experienced a decline in work and thus reduced the number of client hours per day. Three agencies reduced the number of hours in vocational service programs. Eight of the long-term sheltered work programs were reduced, while one agency increased the number of long-term sheltered work hours. Seven of the nineteen work activity center programs reduced the service hours per day.

Respondents were asked for the annual number of client hours provided by each program. The 25 agencies surveyed provided a total of 4,543,743 service hours to clients in 1982. Sixty-eight percent (3,101,665) of these hours were in the 25 long-term sheltered work programs. Eighteen percent (819,741) of the hours were reported by 19 work activity centers. Vocational services (including vocational evaluation, work training, skill training, and prevocational services) provided a total of 622,337 hours (13 percent).

Finally, respondents provided information on the number of clients served by program category (see Table 9). The changes experienced by the programs indicate continued growth in the open-ended, long-term programs. Sheltered work positions increased by 271 clients between 1980 and 1982, while work activity centers grew by 95 clients during this period. The vocational service programs served fewer clients in 1982 than they did in 1980: vocational evaluation, 37 fewer clients; work adjustment training, 124 fewer clients; and skill training, 13 fewer clients. Work-component programs have also experienced a decline with 25 fewer clients in 1982 than 1980.

Table 9
Net Number of Clients Served
(Minnesota Sheltered Employment Programs: 1982)

	1980-1982 (actual)		1980-1983 (estimated)	
TYPE OF PROGRAM	Total Clients	Number of Agencies Reporting	Total Clients	Number of Agencies Reporting
Vocational evaluation	- 37	13	- 21	13
Work adjustment training	-124	18	-108	17
Long-term sheltered workshop	+271	19	+335	18
Work activity	+ 95	15	+162	14
Skill training	- 13	4	- 23	4
Work component	- 25	10	+ 15	10
Other[a]	+ 32	3	+ 40	3
TOTAL	+199	19	+400	18

[a] Other programs include prevocational training and placement.

Agencies are projecting a more optimistic picture for 1983. Long-term programs (long-term sheltered work, work activity center, and work components) project a net increase of clients from 1980 to 1983. Vocational service programs expect a net decrease from 1980 to 1983.

Waiting Lists: Twenty-two agencies (88 percent) have a total of 870 clients on waiting lists. The range is from 1 client to 151. One agency that did not have a waiting list noted that it was at its program capacity and no longer accepted applications.

Approximately 80 percent of the clients are on waiting lists for programs in urban areas.

The number of people on waiting lists breaks down as follows: work activity (N = 425), long-term sheltered work (N = 172), work adjustment training (N = 105), vocational evaluation (N = 99), skill training (N = 44), and other (N = 25). An examination of the waiting lists for developmental achievement centers reveals a duplication of 126 clients on the work activity center lists (*Policy Analysis Paper No. 17*).

Client Movement: There are 637 clients currently participating in the 25 sheltered work programs who are ready to move to another work setting. Thirty-seven percent (N = 236) are perceived as employable in a competitive position. Another 26.6 percent (N = 169) are ready for a sheltered position within a competitive employment setting. There are 232 clients (36.4 percent) who are waiting for openings in other programs within their own agency.

Forty-eight reasons for lack of movement were received from the 25 agencies. Responses were generally of four basic types: (a) the economy and recession (N = 22), (b) lack of placements (N = 16), (c) limited funding (N = 5), and (d) inability to match client needs with available resources (N = 5).

Program Changes: Table 10 reports the number of agencies which expanded and reduced programs and activities. The greatest changes are in the reduction of either the days or hours of services provided. During the three-year period, 19 agencies (76 percent) expanded their placement programs while 6 reported a decline in placement services.

Administrative and program staff employed by the responding agencies were generally reduced during 1981 and 1982.

Table 10
Program and Staffing Changes Due to Budget Considerations by Statewide Total (Minnesota Sheltered Employment Programs: 1982; 100% Reporting)

TYPE OF CHANGE	1981[a]		1982[a]		1983[a] (est.)	
	Number of Agencies Reporting Decrease	Number of Agencies Reporting Increase	Number of Agencies Reporting Decrease	Number of Agencies Reporting Increase	Number of Agencies Reporting Decrease	Number of Agencies Reporting Increase
Program/Activity Area:						
• Days of service	6	1	7	1	4	1
• Hours of service	5	3	14	1	7	2
• Counseling	2	1	1	3	1	2
• Leisure/recreational	2	3	2	5	2	4
• Cognitive/academics	2	2	3	6	1	4
• Self-care skills	1	1	0	4	0	2
• Communication	1	1	3	1	1	1
• Prevocational	2	2	2	5	1	3
• Independent	1	0	1	4	0	3
• Placement	2	7	3	8	1	4
• Transportation	0	2	1	1	2	1
• Meals	0	0	0	0	0	1
Staff:						
• Counselors	4	2	5	4	2	0
• Vocational evaluators	3	2	8	2	0	0
• Work supervisors	4	4	7	2	0	2
• Consultants	1	0	4	3	1	1
• Occupational therapists	1	0	1	0	0	1
• Speech therapists	1	0	2	0	0	1
• Physical therapists	1	0	1	0	0	1
• Behavior therapists	1	1	1	0	0	1
• Activity therapists	1	1	1	1	1	2
• Administrative	4	0	9	0	1	0
• Maintenance	1	0	4	2	0	1
• Food service	1	0	2	0	1	0
• Transportation	2	1	4	0	1	0
• Procurement	3	1	3	3	2	2
• Production	4	1	6	4	1	2

Age: The age of clients attending sheltered work programs range from 15 to 79 years. These programs include work evaluation of high school students. Twenty-one agencies reported the ages of 3,675 clients. The largest number of these clients (N = 1,616, 44 percent) were in the age category of 22 to 35 years. Another 1,108 clients (30.1 percent) were in the 36- to 50-year old age group. Smaller numbers of clients were distributed in the following categories: 16 to 21 years, 345 clients (9.4 percent); 50 to 65 years, 488 clients (13.3 percent); and over 65 years, 118 clients (3.2 percent).

Place of Residence: Table 12 presents the residential arrangements of 3,281 workers reported by 19 agencies. ICF-MR facilities provide housing for 991 sheltered workers (30 percent) while 894 people live in their natural homes. Clients living independently or receiving semi-independent living services represent 18 percent (N = 596) of the respondents.

Table 11
Living Arrangements
(Minnesota Sheltered Employment
Programs: 1982;
76% Reporting)

Type of Living Arrangement	Number of Clients	Percent of Clients
ICF-MR (group home)	991	30%
Natural home	894	27
Independent/semi-independent living	596	18
Foster care	284	9
Board and lodging--board and care	196	6
Other	162	5
Nursing home	102	3
State hospital	56	2
TOTAL	3,281	100%

Primary and Secondary Disabilities: The majority of clients in sheltered employment services are mentally retarded. Twenty-three facilities responded that 2,394 clients (61.7 percent) have a primary disability of mental retardation. Mental illness affects the next largest number of clients (720, 18.6 percent). Table 13 provides both primary and secondary disabilities of clients.

Table 12
Client Primary and Secondary Disabilities
(Minnesota Sheltered Employment
Programs: 1982;
92% Reporting)

	PRIMARY DISABILITY		SECONDARY DISABILITY	
TYPE OF DISABILITY	Number of Clients	Percent of Clients	Number of Clients	Percent of Clients
Mental retardation	2,394	61.7%	227	21.1%
Mental illness	720	18.6	230	17.6
Other physical dis-disability	212	5.5	209	16.0
Cerebral palsy	133	3.4	46	3.5
Visual impairment	125	3.2	47	3.6
Other disability	114	2.9	132	10.1
Epilepsy	83	2.1	245	18.7
Chemical dependency	50	1.3	52	4.0
Hearing impairment	47	1.2	69	5.3
Autism	2	0.1	3	0.2
TOTAL	3,890	100.0%	1,310	100.1%[a]

[a] Total does not equal 100 percent due to rounding.

Level of Functioning: Eighteen agencies reported level of functioning information on 2,622 individuals. Table 13 reveals that the vocational service programs tend to have clients who are either borderline or mildly retarded. The long-term sheltered workers tend

Table 13
Level of Client Functioning
(Minnesota Sheltered Employment Programs: 1982; 72% Reporting)

LEVEL OF CLIENT FUNCTIONING	VOCATIONAL SERVICES		LONG-TERM SHELTERED WORK		WORK ACTIVITY CENTER		OTHER[a]	
	Number of Clients	Percent of Program	Number of Clients	Percent of Program	Number of Clients	Percent of Program	Number of Clients	Percent of Program
Not retarded	72	20%	246	19%	25	3%	0	0%
Borderline	98	27	162	13	39	5	5	2
Mild	107	29	378	29	166	22	28	14
Moderate	69	20	341	26	323	43	89	43
Severe	8	2	78	6	196	26	53	26
Profound	0	0	14	1	2	0	0	0
Unknown or undetermined	10	2	77	6	5	1	31	15
TOTAL	364	100%	1,296	100%	756	100%	206	100%

to be either mildly or moderately retarded, while the largest number of persons served by work activity centers are moderately retarded.

Sheltered employment services are provided to 335 severely retarded (13 percent of the total) persons. Sixteen individuals who are profoundly retarded represent less than 1 percent of the reported population of retarded persons.

C. Individual Client Profile Results

In addition to the administrative and financial questionnaires, sheltered employment staffs were asked to complete an individual profile questionnaire[1] for a 10 percent random sample of their current (1982) clients. With the assistance of direct service staff members and case records, a special set of questions was completed on 352 clients. The purpose of the questionnaire was to obtain more descriptive and detailed information on the personal characteristics and service needs of people enrolled in sheltered employment programs. The results of this portion of the survey will be presented as follows: (a) sex, (b) age, (c) level of retardation, (d) reason for referral, (e) years of participation, (f) history of day services, (g) future day program placements, and (h) income.

Sex: Approximately 47 percent (n = 163) of the sample population are female, while 53 percent (n = 189) are male clients.

Age: The average age of the sample population is 34.7 years. The youngest client in the sample is 15, the oldest is 74 years.

Level of Retardation: According to the sample responses, the level of functioning is borderline (13 percent), mild (31 percent), moderate (27 percent), severe (9 percent), profound (0 percent), and unknown (4 percent). Of the sample, 16 percent are not retarded.

Reason for Referral: Respondents were asked to record the reason(s) an individual had been referred to the program (see Table 14). Evaluation and assessment were the most frequently cited responses, n = 238. One hundred seventeen (117) persons were referred for reduction of specific work-related problems, 37 had completed a public school program, 36 had completed a DAC program, 35 were referred for skill training, 10 were transferred from a DAC program to make room for clients transferred into the DAC from state hospitals, and 4 were transferred from a state hospital. Fifty-five (55) persons were referred for other reasons.

---

[1] Information in this section is calendar year data for 1982.

Table 14
Reason for Referral to Programs
(Minnesota Sheltered Employees;
10% Random Sample: 1982; n = 352)

Reason for Referral	Number of Clients[a]	Percent of Total Sample
Evaluation and assessment	238	68%
Reduction of specific work-related problems	117	33%
Completed public school program	37	11%
Completed DAC program	36	10%
Skill training	35	10%
Transferred from DAC (Welsch v. Levine)	10	3%
Transferred from state hospital (Welsch v. Levine)	4	1%
Other[b]	55	16%

[a] Total number is greater than 352 due to multiple responses.

[b] Other includes increase productivity level, decrease passivity, requested to be moved closer to home, and employment in a smaller workshop.

Years of Participation: Respondents were asked to indicate the number of years the sample workers have participated in the facility's programs. The responses do not necessarily represent consecutive years of enrollment, nor do they necessarily represent the total number of years of sheltered employment services. Clients could have, at one time, received services from other agencies.

Table 15 presents the years of participation in five categories. Half of the workers surveyed (n = 176) have worked less than five years. The average length of participation was 5.3 years (n = 352) for the entire sample. The range was from less than six months to 24 years.

Table 15
Years of Participation
(Minnesota Sheltered Employees;
10% Random Sample: 1982; n = 352)

Years of Participation	Number of Clients	Percent of Clients
0 to 4 years	176	50%
5 to 9 years	127	36
10 to 14 years	39	11
15 to 19 years	6	2
20 years and over[a]	4	1
TOTAL	352	100%

[a] One worker in the sample had been employed 24 years which was the maximum reported.

History of Day Services: Respondents were asked to identify where the sample population had received day program services during the past five years (see Table 16). In 1982, over 90 percent of the clients received services from the agencies' long-term sheltered workshop (n = 253, 72 percent) or work activity center (n = 73, 21 percent) programs. This compares with a 1978 total of 54 percent of clients receiving long-term sheltered work and work activity services. A large shift in the delivery of services is represented by the 40 individuals who graduated from school programs.

Table 16
Day Program Services Received
(Minnesota Sheltered Employees;
10% Random Sample: 1982; n = 352)

TYPE OF SERVICES	CY 1978		CY 1979		CY 1980		CY 1981		CY 1982	
	Number of Clients	Percent of Clients	Number of Clients	Percent of Clients	Number of Clients	Percent of Clients	Number of Clients	Percent of Clients	Number of Clients	Percent of Clients
Long-term sheltered workshop	137	40%	166	47%	179	51%	220	63%	253	72%
Work activity	49	14	53	15	59	17	64	18	73	21
Public school	49	14	42	12	22	6	12	3	9	3
Community--DAC	28	8	19	5	18	5	14	4	5	1
Did not receive day services	25	7	18	5	21	6	13	4	1	0
Competitive	18	5	18	5	16	5	6	1	2	1
Long-term sheltered workshop--another agency	12	3	9	3	10	3	7	2	3	1
State hospital--DAC	6	2	2	1	4	1	1	0	0	0
Work activity--another agency	5	1	7	2	6	2	4	1	4	1
Other[a]	23	7	18	5	17	5	11	3	2	1
TOTAL	352	100%	352	100%	352	101%[b]	352	99%[b]	352	101%[b]

[a] Other day services included posthigh school education, work adjustment training, and working on the family farm.

[b] Total percentages do not equal 100 percent due to rounding.

Future Day Program Placements: Respondents were asked to identify which day program would be most appropriate for the individual. External placements, either competitive (20 percent) or external sheltered (15 percent), represented the largest segment of this sample population. Sixty-five (18 percent) of the individuals are expected to move into a long-term sheltered work program. Ninety-eight (28 percent) of the clients were not expected to move from their current sheltered employment position.

Income: Respondents were asked to provide information on 1981 annual wages, average hourly rate, and average industrial rate. Workers' total 1981 wages were provided on 297 people (84 percent of the sample). The range was from $16 to $8,878 during 1981. There were four workers who earned below $100 and four that earned more than $6,000. The median[1] income was $1,460. The reader is reminded that these total yearly incomes do not necessarily represent an individual's 12-month income. Individuals from the sample may have worked only a fraction of the calendar year.

Information was collected on the worker's average industrial rate and average hourly wage. Wages in sheltered work programs are set according to federal wage and hour standards. An individual's work speed, his/her average industrial rate, is determined by a series of work performance time trials and/or a record of piece-rated job performance. Income is calculated by multiplying work speed (e.g., 30 percent of the industrial norm) by the prevailing industrial rate (e.g., $3.35). The result is referred to as their average hourly wage (e.g., 30 percent × $3.35 = $1.01).

Respondents provided the average industrial rate on 300 workers (85 percent of the sample). The median was 37 percent. The range was from 6 to 114. Sixteen persons working in a long-term sheltered workshop were rated below 25 percent. Information on average hourly wage was provided on 312 workers (89 percent of the sample). The median was $1.25. The range was from $0.14 to $4.46. Nine of the individuals in the sample received over $3.35.

V. SUMMARY

This policy analysis paper presented the findings of a survey of 25 sheltered workshops throughout the state. The survey collected data for federal fiscal years 1980 through 1982, and estimated data for fiscal year 1983. The sheltered employment programs covered in the survey included vocational evaluation, work adjustment training, long-term sheltered work, skill training, work activity, and work components. The major findings of the study included:

---

[1] Median is a measurement of central tendency that identifies the midpoint of the range, i.e., half of the numbers are above this number and half are below.

- Total revenues for 1982 were $35,746,048, an increase of 5.2 percent over 1981. Government revenues accounted for 36.0 percent, subcontract income for 32.9 percent, sales income for 19.1 percent, and other types of support for 12.0 percent of total revenues.

- Total sheltered work expenditures for 1982 were $36,146,322. Personnel costs (client and staff wages and benefits) accounted for 67.4 percent, production supplies 11.2 percent, occupancy 9.9 percent, transportation and other program costs 11.5 percent of the total.

- The workshops reported a total operating deficit of $400,032 for 1982.

- Changes in average daily attendance in 1981 and 1982 varied according to the type of sheltered employment program. Long-term sheltered work and work activity programs showed increases in average daily attendance over this period of time, while vocational services (vocational evaluation, work adjustment training, and skill training) and work components showed declines.

- Sheltered workshops are experiencing lengthy waiting lists for services. A total of 807 persons were identified on waiting lists in 1982. Of these individuals, 69 percent were waiting for work activity or long-term sheltered work placements.

- Several agencies cited a lack of available work as the primary reason for staffing and program changes during 1982. There was an overall trend toward service reductions in 1982: seven facilities reduced their days of service and fourteen facilities reduced their hours of service.

VI. REFERENCES

Bellamy, G. T., Rhodes, L. E., Bourbeau, D. M., & Mank, D. M. Mental retardation services in sheltered workshops and day activity programs: Consumer outcomes and policy alternatives. In W. Williams & G. T. Bellamy (Eds.), Appraisal of Work Opportunities and Related Services for Adults with Retardation. Washington, DC: President's Committee on Mental Retardation, in press.

Bellamy, G. T., Horner, R. H., Sheehan, M. R., & Boles, S. M. Structured employment and workshop reform: Equal rights for severely handicapped individuals. In J. Lapadaski, J. Ansley, & J. Lowitt (Eds.), Work, Services, and Change: Proceedings from the National Institute on Rehabilitation Facilities. Menomonie, Wisconsin: University of Wisconsin, Stout, 1981.

Brickey, M., Browning, L., & Campbell, K. Vocational histories of sheltered workshop employees placed in projects with industry and competitive jobs. Mental Retardation, April 1982, 20(2), 52-57.

Dettrich, A. C. Work activity and the developmentally disabled: Estimated needs and present services in New Jersey. New Brunswick, New Jersey: Rutgers University, Disability and Health Economics Research, 1975.

Greenleigh Associates, Inc. The role of the sheltered workshops in the rehabilitation of the severely handicapped. Washington, DC: July 1975.

Hardy, R. E. & Cull, J. G. Administrative techniques of rehabilitation facility operation. Springfield, Illinois: Charles C. Thomas, 1974.

Hardy, R. E. & Cull, J. G. Services of the rehabilitation facility. Springfield, Illinois: Charles C. Thomas, 1975.

Hutchinson, J. Rehabilitation workshops: Yesterday, today, and tomorrow. Journal of Applied Rehabilitation Counseling, Fall 1973, 4(3), 149-156.

Klein, L. R., et al. Econometric forecast for the United States, 1982.3-1984.2. Wharton Magazine, Fall 1982, 7(1), 49-51.

LeClair, R. R. Are workshops effective in rehabilitation? American Rehabilitation, May/June 1976, 1(5), 24-27.

Lilly, K. L. Redefining the purpose of sheltered workshops. Amicus, 1979, 4(5. 6), 277-280.

Minnesota Department of Economic Security, Division of Vocational Rehabilitation. Background information--Minnesota's long-term sheltered employment/work activity program. St. Paul: Author, March 1981.

Minnesota Department of Economic Security, Division of Vocational Rehabilitation. Brief history of rehabilitation facilities in Minnesota, 1970-1980. St. Paul: Author, 1980.

Minnesota Department of Economic Security, Division of Vocational Rehabilitation. Long term sheltered work/work activity certification standards manual. St. Paul: Author.

Minnesota Department of Economic Security, Division of Vocational Rehabilitation. Minnesota state rehabilitation facilities plan--1980 edition. St. Paul: Author, 1980.

Minnesota Department of Economic Security, Division of Vocational Rehabilitation. Program and financial plan--Fiscal years 1979, 1980, and 1984 for the Division of Vocational Rehabilitation, State of Minnesota. St. Paul: Author, 1978.

Nelson, N. Workshop for the handicapped in the United States. Springfield, Illinois: Charles C. Thomas, 1971.

Parham, J. D. & Wainwright, C. O. Funding and referral sources for vocationally oriented rehabilitation facilities. Journal of Rehabilitation Administration, August 1978, 2(3), 110-113.

Power, P. W. & Marinelli, R. P. Normalization and the sheltered workshop: A review and proposals for change. Rehabilitation Literature, March 1974, 35(3), 66-72.

Redkey, H. A different kind of workshop. Amicus, 1979, 4(5, 6), 270-272.

Summary of major findings of the U.S. Department of Labor Sheltered Workshop study. Amicus, 1979, 4(5, 6), 276.

Ugland, D. Minnesota rehabilitation personnel manpower survey, 1980-81. Journal of Applied Rehabilitation Counseling, Fall 1981, 12(3), 156-159.

U.S. Department of Labor. Sheltered workshop study: Study of handicapped clients in sheltered workshops (Volume II). Washington, DC: March 1979.

U.S. Department of Labor. Sheltered workshop study: Workshop survey (Volume I). Washington, DC: June 1977.

U.S. General Accounting Office. Better reevaluation of handicapped persons in sheltered workshops could increase their opportunities for competitive employment. Washington, DC: Government Printing Office, March 11, 1980.

U.S. General Accounting Office. Improved administration of the vocational rehabilitation program would provide more effective utilization of program funds. Washington, DC: Government Printing Office, September 22, 1982.

Whitehead, C. U. A comprehensive action program for sheltered workshops. Journal of Rehabilitation Administration, August, 1978, 2(3), 115-121.

Whitehead, C. W. A comprehensive action program for sheltered workshops--Part II. Journal of Rehabilitation Administration, February 1979, 3(1), 32-41.

Whitehead, C. W. Sheltered workshops: Effective accommodation or exploitation. Amicus, 1979, 4(5, 6), 273-275.

Whitehead, C. W. Sheltered workshops in the decade ahead: Work and wages, or welfare. In G. T. Bellamy, G. O'Connor, & O. C. Karan (eds.), Vocational Rehabilitation of Severely Handicapped Persons: Contemporary Service Strategies. Baltimore: University Park Press, 1979, 71-84.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 16: A Statewide Summary of Sheltered Employment Programs.* St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, April, 1983.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 17

AN UPDATE TO POLICY ANALYSIS SERIES NO. 6 THROUGH 9

THE FINANCIAL, CLIENT, AND PROGRAM STATUS OF MINNESOTA DEVELOPMENTAL ACHIEVEMENT CENTERS: 1982

Contents

Page

I. Introduction and Review of Literature 1
II. Methodology 2
III. Survey Results 2
  Financial Results 3
    Revenue 3
    Expenditures 4
    Operating Surplus or Deficit 5
    Per Diems 5
    Building Accessibility 7
    Licensed Capacity 7
    Average Daily Attendance 8
  Client Results 8
    Client Characteristics 8
    Out-of-County Clients 12
    Client Movement 12
    Waiting Lists 15
    Readiness for Work Placement 16
  Program Results 18
    Program Personnel 18
    Staff Turnover 19
    Program Hours and Days 20
    Current Program Activities 20
    Work Components 21
    Policy/Program Changes 22
IV. Summary 24
V. References 26

I. INTRODUCTION AND REVIEW OF LITERATURE

The purpose of this policy analysis paper is to present the findings of the 1982 survey of Minnesota's 107 developmental achievement centers (DACs). This statewide survey updated the information collected by the 1981 survey on the financial, program, and client status of DACs.

During the past year, funding for DAC services has continued to be a problematic issue. There has been a disparity between counties in their level of support for DAC services. In some cases, funding cutbacks have caused service reductions, leading to appeals and a Minnesota Supreme Court decision on the provision of DAC services. The results of this survey will make it possible to assess changes in the fiscal status of DAC programs over the past year, and to analyze the implications of possible alternative funding mechanisms.

In addition, there is a continuing need for information on the programmatic and client status of DACs. This survey information should be of use in planning for the ongoing deinstitutionalization of state hospital residents under the *Welsch v. Levine* Consent Decree.

An extensive review of literature on day programs was included in *Policy Analysis Papers No. 6, 7, 8*, and *9*. The reader is urged to refer to those papers for a historical background of day programs in Minnesota and references on day programs elsewhere in the United States.

II. METHODOLOGY

This study was conducted as a joint effort of the Minnesota Developmental Disabilities Program, the Department of Public Welfare--Mental Retardation Division (DPW), and the Minnesota Developmental Achievement Center Association (MinnDACA). Revision of the 1981 survey was accomplished with input from representatives of those three agencies. The survey was field tested in DACs during August and September 1982 and reached its final form in November 1982.

The survey was conducted as a mail survey, with follow-up phone calls to obtain 100% participation, to obtain missing data, and to clarify responses. On November 29, 1982, a packet containing an instruction manual, a cover sheet, and financial and administrative questionnaires were mailed to each of the 108 licensed community developmental achievement centers in the state. (State hospital DACs were not included in the survey.) One facility which receives no public money refused to participate. All of the remaining 107 DACs participated in the study, with 104 facilities returning their questionnaires during December, January, and February, and 3 facilities responding in phone interviews using the survey format.

Editing and coding of the surveys as well as computer entry of the data were done by staff of the Developmental Disabilities Program during December, January, February, and early March.

III. SURVEY RESULTS

The format of the 1982 survey differed in two major ways from that of the 1981 survey. First, the random sample of clients was eliminated, and questions pertaining to individual client characteristics were incorporated into the administrative questionnaire. Second, the categories of infant, preschool, school-age, and adult programs were combined into children (aged birth to 4 years) and adults (21 years and over). DAC directors were asked to include any school-age individuals (4 to 21 years old) served in the children or adult category based on the type of services received.

Survey results will be presented in three major sections: financial, client, and program results. The figures are statewide totals unless otherwise noted. Regional data were available but were not included here for the sake of brevity.

A. Financial Results

The financial results will be presented in the following order: (1) revenue, (2) expenditures, (3) operating surplus or deficit, (4) per diems, (5) building accessibility, (6) licensed capacity, and (7) average daily attendance.

Revenue: The total revenue for Minnesota developmental achievement centers (DACs) for 1982 was $27,404,614 presented in Table 1. Total adult program revenues were $19,616,520, and total children program revenues were $7,788,094. The statewide average increase in total revenues was 5.5%. This represents a figure smaller than inflation for 1982 which was 9.7% for the Minneapolis-St. Paul area.[1]

In 1982, government revenues accounted for $25,641,453 or 93.6% of all DAC revenue while family support was $498,648 or 1.8%, and other types of support were $1,264,513 or 4.6%. Government revenue as a percentage of total revenues declined from 94.9% in 1981 to 93.6% in 1982. This reduction was compensated for by an increase in other types of support which increased from 3.4% of total revenues in 1981 to 4.6% of total revenues in 1982.

In comparison to 1981, government revenues increased 4%, family support 9.7%, and other types of support 45% in 1982. Total revenues from 1981 to 1982 increased 5.5%.

Table 1 also presents revenues by program. Adult programs rely more on government revenues for total revenues than children's programs, 95.4% to 89.0%. Children's programs rely more on family support than adult programs for total revenue, 5.7% to 0.3%. Children's programs also rely more on other types of support than adult programs for total revenues, 5.3% to 4.3%.

---

[1] United States Department of Labor, Bureau of Labor Statistics, 1983. The Consumer Price Index is kept only for the Twin Cities metropolitan area. There is no statewide figure available.

Table 1
Sources of Revenue by Program and Statewide Total
(Minnesota DACs: 1982, N = 107; 100% Reporting)

SOURCE OF REVENUE	ADULT PROGRAMS		CHILDREN'S PROGRAMS		TOTAL	
	Revenue	Percent	Revenue	Percent	Revenue	Percent
Government	$18,708,612	95.4%	$ 6,932,841	89.0%	$25,641,453	93.6%
Family support	54,800	0.3	443,848	5.7	498,648	1.8
Other types of support	853,108	4.3	411,405	5.3	1,264,513	4.6
TOTAL	$19,616,520	100.0%	$ 7,788,094	100.0%	$27,404,614	100.0%

Expenditures: The financial questionnaire separated expenditures into four categories: personnel, transportation, occupancy, and other program costs.

Like most human services, developmental achievement centers have a large labor component as a percentage of total expenditures. Personnel costs included salaries, employers' payroll taxes, and fringe benefits paid by the DAC for any employee. As Table 2 indicates, the total statewide personnel cost for 1982 was $16,957,503 or 62.3% of total expenditures. As a percentage of total expenditures, personnel costs decreased from 63.3% in 1981 to 62.3% in 1982. Adult programs spent 63.2% of total expenditures for personnel costs while children's programs spent 60.4% of total expenditures for personnel costs.

Table 2
Expenditures by Program and Statewide Total
(Minnesota DACs: 1982, N = 107;
100% Reporting)

TYPE OF EXPENDITURE	ADULT PROGRAMS		CHILDREN'S PROGRAMS		TOTAL	
	Expenditure	Percent	Expenditure	Percent	Expenditure	Percent
Personnel	$12,040,646	63.2%	$ 4,916,857	60.4%	$16,957,503	62.3%
Transportation	2,540,144	13.3	1,030,897	12.7	3,571,041	13.1
Occupancy	1,991,526	10.4	652,030	8.0	2,643,556	9.7
Program	2,493,359	13.1	1,538,139	18.9	4,031,498	14.8
TOTAL	$19,065,675	100.0%	$ 8,137,923	100.0%	$27,203,598	100.0%

The second largest cost component was program expenses. This category included expenses not incurred in the other three areas. Costs included program supplies, postage, office supplies, and subscriptions. Program costs were $4,031,498 in 1982 representing 14.8% of total expenditures. Children's programs spent a larger percentage of their expenditures on program costs than adult programs, 18.9% to 13.1%. As a percentage of total expenditures, program costs increased from 13.1% in 1981 to 14.8% in 1982.

The third largest cost area was transportation expenses. As Table 2 indicates, total transportation costs of 1982 were $3,571,041 or 13.1% of total expenditures. Adult programs spent 13.3% of total expenditures on transportation while children programs spent 12.7% of total expenditures on transportation. As a percentage of total expenditures, transportation costs decreased from 15.2% in 1981 to 13.1% in 1982.

The fourth largest cost area was occupancy costs. Table 2 indicates total occupancy costs for 1982 were $2,643,445 or 9.7% of total expenditures. Adult programs spent a larger percentage of total expenditures on occupancy costs than children's programs in 1982, 10.4% to 8.0%. In comparison to 1981, occupancy costs as a percentage of total expenditures increased from 8.4% to 9.7%.

In an overall comparison to 1981, occupancy costs increased 21.4%, program costs increased 18.1%, personnel costs increased 3.0%, and transportation costs decreased 9.3%. The overall expenditure increase from 1981 to 1982 was 4.6%.

Homebased expenditures statewide totaled $980,432 or 3.4% of the total statewide expenditures. Children's homebased programs accounted for $971,888 or 12.0% of total statewide children expenditures while adult homebased programs accounted for $8,544 or 0.05% of total statewide adult expenditures.

Operating Surplus or Deficit. Operating surplus or deficit is defined as operating revenues minus personnel, transportation, occupancy, and program expenditures. In 1982, 33 DACs (31% of the 107 DACs) reported an operating deficit. In 1981, 32 DACs (30% of the 106 DACs) reported an operating deficit.

These findings do not represent audited financial returns but rather are as reliable as the information reported by the DACs themselves. The findings suggest a wide range of financial operating status as some DACs were financially stable while others suffered operating deficits.

Per Diems: Respondents were asked to give both the program per diem and the transportation per diem for adult and children center and home-based programs. These per diems are listed in Table 3 as averages and as a range.

Table 3
Program Per Diems
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Program	Average Per Diem	Range of Per Diems	Number of Programs
Adult (in-center)	$22.14	$11.98-$ 47.75	100
Adult (home-based)	$33.81	$26.87-$ 42.29	4
Children (in-center)	$33.45	$ 9.13-$ 71.50	51
Children (home-based)	$40.79	$ 5.65-$101.83	40

The average statewide program per diem for adults was $22.14 (in-center) and $33.81 (home-based) in 1982. Adult per diems (in-center) increased 5.4% in 1982. Adult per diems (home-based) increased 12.4% from 1981 to 1982. The average statewide program per diem for children was $33.45 (in-center) and $40.79 (home-based) in 1982.

Transportation per diems in Table 4 show that the statewide average adult (in-center) rate was $4.05 in 1982, while the statewide average children (in-center) rate was $6.02 in 1982. The statewide adult transportation per diem decreased 5.3% in 1982.

Table 4
Transportation Per Diems
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Program	Average Per Diem	Range of Per Diems	Number of Programs[a]
Adult (in-center)	$ 4.05	$0.17-$ 8.72	93
Adult (home-based)	$ 0.00	---	0
Children (in-center)	$ 6.02	$0.30-$17.77	41
Children (home-based)	$ 3.81	$0.20-$ 7.66	3

[a] The difference between the number of programs reporting transportation per diems and those reporting program per diems is due to the fact that some DACs were unable to break out transportation per diems from the program per diems.

The total adult (in-center) average per diem was $26.19 in 1982 compared to $25.33 in 1981, a 3.4% increase. The total children (in-center) average per diem was $38.29 in 1982.

Building Accessibility: DAC directors were asked about the exterior and interior accessibility of the buildings housing their programs. There were 153 buildings used for the 107 DAC programs in 1982. Of those 153 buildings, 75% (N = 115) were reported to be accessible on the exterior. With regard to interior accessibility, 59% (N = 91) were totally accessible, 28% (N = 41) were partially accessible, and 13% (N = 20) were not accessible.[1] The number of exterior accessible buildings increased by 10 from 1981 and the number of barrier-free interior buildings increased by 6 from 1981.

Licensed Capacity: Table 5 shows the licensed capacity for DACs by program and statewide total in 1982. DACs are licensed by the Licensing Division of the Department of Welfare to provide adult programs or preschool programs or both. DAC licenses indicate a facility's client capacity, which is determined by building characteristics and staff capabilities. Licensed capacity is for in-center programs only; home-based programs are not licensed.

Table 5
Licensed Capacity: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Program	Licensed Capacity	Average Capacity	Range of Capacity	Number of Programs
Children	1,208	22.79	4-134	53[a]
Adults	4,869	48.69	4-230	100
TOTAL	6,077	56.79	4-257	107

[a] Two programs have a licensed capacity to serve children but are not currently serving any children.

The total licensed capacity for 1982 for 107 DACs statewide was 6,077. This is an increase of 493 or 8.8% over 5,584 for 1981. The statewide average total capacity was 56.79 per agency.

---

[1] A building was considered to be totally accessible on the interior if a person in a wheelchair can move about and use all floors and restroom facilities. A building was partially accessible if at least one floor and one restroom on that floor were accessible.

In 1982, the statewide licensed capacity for adult programs was 4,869 compared to 4,436 in 1981. The statewide average adult capacity was 48.69. The statewide licensed capacity for children programs was 1,208 compared to 1,148 in 1981. The statewide average children capacity was 22.79 per agency.

Average Daily Attendance: Table 6 indicates statewide total average daily attendance was 4,450 in 1982 compared to 4,429 in 1981, an increase of 0.5%. Total adult average daily attendance was 3,633, an increase of 2.3% over 1981. Total children average daily attendance was 817 in 1982.

Table 6
Average Daily Attendance: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Program	Average Daily Attendance	Average Per Program	Range Per Program	Number of Programs
Children	817	15.71	2-111	51
Adults	3,633	36.33	4-204	100
TOTAL	4,450	41.59	2-204	107

B. Client Results

The client results will be presented in the following order: (1) client characteristics, (2) out-of-county clients, (3) client movement, (4) waiting lists, and (5) readiness for work placement.

Client Characteristics:

- Age: Table 7 presents DAC enrollment totals for 1982 by age categories. These figures include all persons who were enrolled in Minnesota's DAC programs--including homebound programs--at the time of the survey. The total enrollment for the 107 DAC programs is 5,399. Over one-half of the clients (57%, N = 3,083) are 21 to 50 years old; 73% (N = 3,945) are over 21 years old. Children aged birth to 4 years account for 24% (N = 1,305) of the total DAC enrollment. The school-aged population is 149 (3%).

Table 7
Age of Clients: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Age of Client	Number of Clients	Percent of Clients
Birth up to 2 years	487	9%
2 years up to 4 years	818	15
4 years up to 21 years	149	3
21 years up to 50 years	3,083	57
50 years up to 65 years	670	12
65 years and older	192	4
TOTAL	5,399	100%

- Level of Functioning: Table 8 reports the level of functioning of DAC clients during 1982. The statewide totals indicate that 2.5% of all DAC clients are not retarded[1] (N = 133), 4.0% (N = 217) are borderline, 14.6% (N = 789) are mildly retarded, 26.8% (N = 1,445) are moderately retarded, 25.7% (N = 1,385) are severely retarded, 9.5% (N = 514) are profoundly retarded, and 16.9% (N = 916) have an unknown/undetermined level of retardation or are classified as developmentally delayed. Of the last category, 95.6% (N = 876) are children.

---

[1] In addition to serving persons with mental retardation, developmental achievement centers may be licensed under state statute and DPW Rule to serve persons with cerebral palsy.

Table 8
Level of Client Functioning: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

LEVEL OF FUNCTIONING	NUMBER OF CHILDREN	NUMBER OF ADULTS	TOTAL	
			Number	Percent
Not retarded[a]	111	22	133	2.5%
Borderline	58	159	217	4.0
Mild	92	697	789	14.6
Moderate	151	1,294	1,445	26.8
Severe	63	1,322	1,385	25.7
Profound	45	469	514	9.5
Unknown or undetermined (developmentally delayed)	876	40	916	16.9
TOTAL	1,396	4,003	5,399	100.0%

[a] In addition to serving persons with mental retardation, developmental achievement centers may be licensed under state statute and DPW rule to serve persons with cerebral palsy.

- Place of Residence: Table 9 indicates the type of residential setting for all DAC clients in 1982. The majority of clients live in natural or adoptive homes (44.5%, N = 2,402) or in ICF-MR settings (43.3%, N = 2,339). Nursing homes are the residences of 4.6% of the population (N = 247) while 4.1% (N = 220) live in foster care homes, and the remaining 3.4% live in other settings.

  Nearly all children live in natural, adoptive, or foster care homes (99.1%, N = 1,384). Adults live in a range of residential settings. The largest group of adults live in ICF-MRs (58.2%, N = 2,328); 27.7% (N = 1,108) live in natural or adoptive homes, and the remaining adults reside in other residential settings.

Table 9
Client Residence: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

	CHILDREN		ADULTS		TOTAL	
RESIDENTIAL SETTING	Number	Percent	Number	Percent	Number	Percent
Natural/adoptive home	1,294	92.7%	1,108	27.7%	1,402	44.5%
Foster care home	90	6.4	130	3.2	220	4.1
ICF-MR group home	11	0.8	2,328	58.2	2,339	43.3
Semi-independent living	0	0.0	40	1.0	40	0.7
Independent living	0	0.0	51	1.3	51	0.9
Board and lodging/board and care	0	0.0	99	2.5	99	1.8
Nursing home	0	0.0	247	6.2	247	4.6
Other	1	0.0	0	0.0	1	0.0
TOTAL	1,396	100.0%	4,003	100.0%	5,399	100.0%

- Secondary Disabilities: Table 10 reports the incidence of disabilities in addition to, or other than, mental retardation in the DAC population. Because some clients are multiply handicapped, there is some duplication in this count.

The 53 DAC programs serving children which responded to this question reported a total of 806 other disabilities among their populations. The highest incidences of other disabilities were cerebral palsy (N = 200), other physical handicaps (N = 152), and epilepsy (N = 121). The 99 adult programs reported a total of 2,818 other disabilities, with the highest incidences being significant behavior problems (N = 498), epilepsy (N = 496), and other physical handicaps (N = 418).

Table 10
Incidence of Disabilities in Addition to or Other than Mental Retardation[a]
(Minnesota DACs: 1982, N = 107; 100% Reporting)

Type of Disability	Number of Children	Number of Adults
Cerebral palsy	200	320
Other physical handicap	152	417
Epilepsy	121	496
Autism/autistic like	33	79
Deaf/hearing impairment	56	316
Blind/vision impairment	90	297
Mental illness	8	276
Significant behavior problems	52	498
Other	94	119
TOTAL	806	2,818

[a] This is a duplicated count; some clients are multiply handicapped.

Out-of-County Clients: DAC directors reported that 23.2% (N = 1,254) of the clients enrolled in their programs were out-of-county placements. The 1982 figure shows a slight increase over the 1,244 out-of-county clients for 1981.

DACs were also asked to indicate whether any of their out-of-county clients were being provided with different program hours or days than in-county clients. In response to this question, DACs reported that 76 out-of-county clients received reduced services during 1982. Twenty counties of financial responsibility were involved in the service reductions for the affected clients.

Client Movement: In order to examine the movement patterns of DAC clients, administrators were asked for their 1982 new admission, readmission, transfer/demission, and death statistics for children and adults. These data are summarized in Table 11. These numbers indicate that there was a net movement of 121 children and 252 adults into the DAC system during 1982. Caution should be exercised in using these numbers, however. Comparison of 1981 and 1982 enrollment data with this net movement data indicate numerous reporting errors on the individual facility level. (Enrollment data indicate an increase of 245 clients from 1981 to 1982; movement data indicate a net gain of 373 clients.)

Table 11
Client Movement: Statewide Totals
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Movement	Number of Children	Number of Adults	Total
New admissions[a]	951	639	1,590
Readmissions[b]	25	72	97
Transfers/demissions[c,d]	(834)	(436)	(1,270)
Deaths[d]	(21)	(23)	(44)
NET INCREASE	121	252	373

[a] New admission: an individual entering the agency for the first time.

[b] Readmission: a client who entered, left the program, and then reentered the agency.

[c] Transfer/demission: a client who transferred to another DAC or left the program.

[d] Parentheses indicate a negative value, i.e., movement out of DAC programs.

DAC directors were also asked to report how many of their admissions, readmissions, transfers, and demissions came from and went to other placements such as public school, work programs, etc.

These data are summarized for children and adults in Tables 12 and 13. As with the overall movement data in the previous table, the reader is urged to exercise caution in using these numbers. Nonetheless, it is possible to examine some general trends in the movement of children and adults into and out of DAC programs.

Table 12 indicates that the vast majority of children in DAC programs have had no previous day program placement (80.1%, N = 788). Other DACs (N = 87), preschool programs (N = 60), other programs (N = 31), and public schools (N = 10) each account for a small amount of the previous placements for children.

More than half (51%, N = 425) of the demitted/transferred children go to public schools, with 21.7% (N = 181) not going to any program, 11.3% (N = 94) going to other DACs, 10.1% going to preschool programs, 5.8% (N = 48) to other programs, and 2 children going to state hospitals.

Table 12
Placements of Children Admitted/Readmitted to and Demitted/Transferred from DACs in 1982
(Minnesota DACs: 1982, N = 107;
100% Reporting)

Type of Placement	Number of Children Admitted/ Readmitted to DACs	Number of Children Demitted/ Transferred from DACs
Public schools	10	425
Another DAC	87	94
Preschool program (e.g., nursery school, Headstart, day-care program)	60	84
No program	788	181
State hospital day program	0	2
Other	31	48
TOTAL	976	834

As shown in Table 13, the majority of adult DAC clients come from public schools (30.0%, N = 213), no program (20.4%, N = 145), another DAC (18.8%, N = 134), and state hospitals (16.7%, N = 119), with small numbers also coming from sheltered work (N = 39), work activity (N = 34), competitive employment (N = 5), and other settings (N = 22).

The largest numbers of adult transfers/demissions go to other DACs (23.6%, N = 103), no program (22.7%, N = 99), sheltered work (17.2%, N = 75), and work activity (15.6%, N = 68). According to this data, 27 adults were also demitted to state hospitals, 50 to other settings, 8 to public schools, and 6 to competitive employment.

Table 13
Placements of Adults Admitted/Readmitted from and Demitted/Transferred to DACs in 1982
(Minnesota DACs: 1982, N = 107; 100% Reporting)

Type of Placement	Number of Adults Admitted/ Readmitted to DACs	Number of Adults Demitted/ Transferred from DACs
Public schools	213	8
Sheltered work	39	75
Work activity	34	68
Competitive employment	5	6
Another DAC	134	103
No program/no employment	145	99
State hospital day program	119	27
Other	22	50
TOTAL	711	436

Waiting Lists: Respondents to the 1982 DAC survey reported that 402 persons,[1] including 82 children and 320 adults, were on waiting lists at 28 of Minnesota's 107 developmental achievement centers. DACs in Region Eleven account for 88.8% of all people on waiting lists. One metropolitan area DAC reported having more than 100 people on their waiting list.

The reader is advised to use the waiting list numbers with caution. Where it was possible to determine duplication, duplicate names were removed from the total waiting list.[1] As noted in Table 14, some of the people on waiting lists are currently enrolled in a day program but are awaiting placements more appropriate to their needs.

---

[1] This is an unduplicated count. The actual number reported by DACs was 409, but 7 adults were identified on lists at other agencies.

Table 14
Current Placement of Individuals
on DAC Waiting Lists
(Minnesota DACs: 1982, N = 107)
100% Reporting)

Type of Placement	Number of Children	Number of Adults	Total
No program	38	79	117
Unknown/unspecified	32	14	46
Another DAC program	9	135[a]	144
Work activity	0	2	2
Public school	0	71	71
State hospital	0	14	14
Other	3	5	8
TOTAL	82	320	402

[a] At least 90 people in this group are in need of work activity program services.

Readiness for Work Placement: DAC directors were asked for an unduplicated count of their adult clients who were ready to move into the following work placements: work activity, sheltered work, competitive employment, and other programs. They were also asked to indicate the primary reasons (one per person) why these clients were not moving.

---

[1] The reader should also be aware that there is a duplication of 125 adults between this DAC waiting list and the sheltered workshop waiting list described in *Policy Analysis Paper No. 16*. Three agencies with sheltered work, work activity, and DAC programs (Opportunity Workshop, Mankato Rehabilitation Center/Blue Earth DAC, and Brighter Day Achievement Center) listed individuals on both waiting lists.

As Table 15 shows, a total of 528 adults were reported to be ready for the following placements: work activity (N = 349), sheltered work (N = 154), competitive employment (N = 21), and other (N = 4). Lack of available slots was the primary reason for lack of movement for 32.0% (N = 112) of the work activity ready clients and 31.0% (N = 47) of the sheltered work ready clients. Reluctance or unwillingness to make the change on the part of parents or clients was the primary reason for 17.8% (N = 62) of the work activity ready clients and 46.8% (N = 72) of the sheltered work ready clients. An additional 26.4% (N = 92) of the work activity ready clients and 11.8% (N = 18) of the sheltered work ready clients are prevented from program participation because of a characteristic, such as a behavior problem. The primary reasons for the remaining clients are a lack of community support services or because they are awaiting evaluation, referral, or placement.

Table 15
Clients Ready for Work Placement and Primary Reasons for Lack of Movement
(Minnesota DACs: 1982, N = 107; 100% Reporting)

REASON FOR LACK OF MOVEMENT	NUMBER OF CLIENTS READY FOR WORK PLACEMENT			
	In Work Activity	In Sheltered Work	In Competitive Employment	In Other Settings
Lack of available work activity/sheltered work slots	112	47	0	0
Lack of community support services such as residential and transportation services	16	8	6	0
Parents or clients reluctant or unwilling to make change (e.g., do not want to leave home, community, or unwilling to participate)	62	72	6	0
Client has a characteristic which prevents him/her from participating in WA/SWS program (e.g., behavior problem, inappropriate social behavior, inadequate production rate, etc.)	92	18	6	0
Clients are awaiting evaluation, referral, or placement	21	8	0	0
Other	46	1	3	4
TOTAL	349	154	21	4

C. Program Results

The program results will be presented in the following order: (1) program personnel, (2) staff training, (3) staff turnover, (4) program hours and days, (5) current program activities, (6) work components, and (7) policy changes.

Program Personnel: DAC administrators were asked to report the total number of administrative, direct service, and support function hours worked by personnel. These totals were divided by a standard full-time equivalent (FTE) of 2,080 hours to determine the FTE complement in each personnel category, as shown in Table 16.

Table 16
Total Personnel Hours and Full-Time Equivalents: Statewide Totals
(Minnesota DACs: 1982, N = 107; 98% Reporting)

Type of Personnel	Total Personnel Hours	Full-Time Equivalents (FTEs)
Administrative	410,216	197.22
Direct service	1,643,293	790.04
Support function	240,106	115.44
TOTAL	2,293,615	1,102.70

Administrators were also asked to indicate the total number of staff positions in their agency by type of personnel. These totals include both full- and part-time staff members and consultants employed by the DAC. Table 17 presents the statewide totals by position.

Table 17
Personnel Positions: Statewide Totals[a]
(Minnesota DACs: 1982, N = 107;
99% Reporting)

Type of Personnel Position	Number of Positions	
Administration:		
• Directors/administrators	117	
• Program coordinators	109	
• Secretaries/clerical/office managers	99	
• Bookkeepers/accountants	62	
TOTAL ADMINISTRATION		387
Professional/Paraprofessional:		
• Teachers	486	
• Teachers' aides/assistants	403	
• Therapists	199	
TOTAL PROFESSIONAL/ PARAPROFESSIONAL		1,088
Facility Support--Nonprogram:		
• Maintenance	55	
• Food service	26	
• Transportation	128	
TOTAL FACILITY SUPPORT-- NONPROGRAM		209
Other		35
TOTAL DAC PERSONNEL POSITIONS		1,719

[a] These figures are not adjusted using a standard full-time equivalent. Some individuals hold more than one position; these 1,719 positions are filled by 1,609 persons.

Staff Turnover: Statewide, the average turnover rate for program and administrative staff was 13.5%. Turnover rates at individual facilities ranged from 0.0% to 63.0%. DAC directors were asked to identify the primary reasons why personnel left employment. The most frequently stated reasons are presented in rank order below:

- moved, relocated;
- career changes, took another position;
- layoffs, terminations;

- salary or pay;
- family, maternity leave, child care, personal reasons;
- returned to school;
- resignations;
- retirement.

Program Hours and Days: As of December 1982, 51 DACs were serving children in center-based programs, and 100 DACs were serving adults in center-based programs.

For full-time participants in center-based programs, the average number of service days per year was 193.8 for children and 209.65 for adults. Children's programs reported an average of 4.76 program days per week while adult programs reported an average of 4.99 days. The average hours of service per day was 4.72 for children and 6.14 for adults.

In home-based programs, 5 DACs served a total of 12 adult participants, and 41 DACs served a total of 677 children during 1982. Overall, the average number of home visits per month and hours per visit were 3.49 visits and 1.60 for adults and 3.98 visits and 1.65 hours for children. On the individual facility level, the average number of visits ranged from 2.00 to 6.25 for adults and from 0.75 to 9.00 for children, and the average numbers of hours per visit ranged from 1.00 to 4.85 for children and 1.00 to 2.00 for adults.

Current Program Activities: DACs were asked to report the average percentage of time adult clients spent in various program activities. Table 18 indicates that the largest proportion of time is spent in the work skills/prevocational area (29.8%). Other program activities include education/academics/cognitive (15.6% of program time), recreation/leisure (12.8%), independent living/community orientation (12.7%), self-care (11.6%), communication/language (10.3%), and sensorimotor/motor skills development (7.2%).

Table 18
Average Percentage of Time Spent
in Program Activities
(Minnesota DAC Adult Programs: N = 100;
99% Reporting)

Program Activity	Percent of Time Spent
Work skills/prevocational	29.8%
Self-care	11.6
Communication/language	10.3
Recreation/leisure	12.8
Education/academics/cognitive	15.6
Independent living/community orientation	12.7
Sensorimotor/motor skills development	7.2
TOTAL	100.0%

Work Components: DAC directors reported that 91 of the 100 in-center DAC programs serving adult clients had work component programs. A total of 2,859 clients were enrolled in these work components as of December 1, 1982.

Work component programs are required to have wage and hour certification from the Department of Labor (DOL). Sixty DACs have working agreements with sheltered workshops which hold the wage and hours certificate. Twenty-nine DACs carry their own wage and hour certificates, and two DACs indicated that both the DAC and the cooperating sheltered workshop have DOL certification.

DAC directors were asked what were the types of work and major sources of work performed in their work component programs. The 86 responses to this question indicated that DAC work components utilize a variety of sources to obtain work. Sheltered workshops were mentioned as a source of work for 53 programs, local businesses and companies for 35 programs, their own or another DAC for 23 programs, the general public/community for 11 programs (through sales, etc.), and other sources (local service organizations, charities, and one local government) for 4 programs. Many programs cited 2 or more work sources.

Packaging and assembly work were the most frequently mentioned types of work, followed by collating, sorting, manufacturing of prime products, recycling, janitorial/maintenance work, and crafts. Twenty directors specifically mentioned simulated work provided by the sheltered workshop, or in some cases by the DAC, as a type of work.

DACs were also asked a series of questions regarding client earnings from work during 1982. In the 91 programs with work components, a total of 2,860 clients earned wages during 1982. Wage data were reported for 2,669 clients in 83 programs. The total annual payroll for these clients was $355,820.00, yielding average annual client earnings of $133.32. On an agency basis, average annual client earnings ranged from a low of $6.50 to a high of $750.00. Facilities were also asked what were the least and most amounts earned by clients during the year. The highest earnings figures ranged from $19.40 to $2,300.00; the lowest earnings figures ranged from $0.07 to $315.00. (Some individuals in the lowest earnings group did not work all year.)

Policy/Program Changes: DAC directors were asked to identify any major policy or program changes which occurred during 1982 because of budgetary or programmatic reasons. The identified changes have been grouped into the following categories: (1) addition or closure of programs, (2) changes in units of service provided, (3) staffing changes, (4) changes in program activities and services, (5) changes in the number and type of clients served, and (6) admission/demission policy changes.

- Program Additions/Changes: One DAC reported adding homebound services for children, and one reported expanding their early intervention services to include a center-based program for children. One new in-center program serving adults opened during the year. One DAC closed an in-center children's program, and one closed in-center and homebound children's programs and ended adult home visits. Two children's programs moved infants from homebound to in-center services to reduce costs.

- Changes in Units of Service: Two children's programs and seven adult programs reported reducing their days and/or hours of service for all clients during 1982, while one adult program reported an increase in days of service. An additional ten adult programs indicated that hours and/or days of service were reduced for some of their participants. Of the ten DACs involved, four noted that the affected participants were out-of-county clients; two stated that they were older (over 60 years) participants; the remaining four programs did not specify. One DAC noted that the service reductions for older clients have since been eliminated. (See page 12 for more detailed statewide information on service differences for out-of-county clients.)

- Staffing Changes: Budgetary cutbacks, increases or decreases in enrollment, and changing client needs were the primary reasons for the DAC staffing changes made during 1982. Fifteen adult and three children's programs reported reductions in program staff accomplished by layoffs, reducing hours worked and not filling vacant positions or replacing staff on leave. Five adult programs reported adding staff: four because of increases in the number of clients with higher needs and one because a vocational staff person was needed to expand vocational training. One adult program noted that additional staff were needed because of the admission of new clients with severe and multiple disabilities, but that no funds were available. Three programs indicated that they had redistributed job duties, with administrators and program coordinators taking on more direct service hours and program staff adding janitorial and transportation duties. One adult program reallocated staff from other clients to develop a behavioral training group for clients in need of this service.

  Three directors reported that staff salaries had been cut or increased by a very small amount. Four centers noted that they had reduced expenditures on in-services, training, and conferences for staff.

- Changes in Program Activities and Services: Several adult programs reported making changes in their program activities during 1982. Academic activities were reduced by one program and eliminated by another. One program dropped arts and crafts; three added or expanded independent living skills activities; and one placed more emphasis on self-care. Two programs reported reductions in vocational training because of lack of work and fees charged to the DAC by the sheltered workshop. Seven programs indicated that they had increased their emphasis on work skills/vocational training. One program noted that they had begun a cooperative program with a sheltered workshop to facilitate transition between the two programs.

  A number of DACs indicated they had made changes in the provision of speech, physical, occupational, and music therapy services. Two children's programs described general reductions in therapeutic services. Another program noted that children had benefited from receiving therapy in small groups rather than individually--a change required by funding cuts. One adult program reported adding consultant hours in therapy. Several DACs switched to contractual arrangements for the provision of therapy, with mixed results.

  There were several changes in transportation services during 1982 as well. Four programs reported reducing the amount of transportation they provided. Three DACs reduced costs by switching from contracted transportation to providing their own. One center added a self-supporting early morning day care program because their morning transportation had to be cut.

A number of DACs reported eliminating anything "extra" in the way of programming--seven programs reported eliminating such activities as summer and evening programming, camping, field trips, recreational activities, and a lunch program. Two centers began charging participants' families for the costs of out-of-center trips and other activities.

- Changes in the Number and Type of Clients Served: The client characteristics and movement data presented earlier in this paper (pages 9, 12 through 14) and historical information on DAC programs (see *Policy Analysis Papers No. 6, 7, 8,* and *9*) indicate that there has been an increase in the numbers of more severely disabled persons in the statewide DAC population. On the individual facility level, seven adult programs specifically indicated that during 1982 they had added severely and/or multiply disabled persons requiring special programming.

- Admission/Demission Policy Changes: The out-of-county placplacement issue was a factor in addmissions/demissions for three programs. Two DACs reported demitting clients whose county of financial responsibility would not pay for full services; another facility indicated that they will not admit participants unless their county will pay for the level of service deemed appropriate in the individual's IPP (individual program plan).

  Waiting lists were a factor in policy decisions made by two DACs: one children's program decided not to place older preschoolers (those eligible for public school in the upcoming year) on their waiting list for admission. One adult program decided to offer only full-time services because of the number of people on their waiting list needing full-time services.

IV. SUMMARY

This policy analysis paper presented the findings of the 1982 survey of Minnesota's 107 developmental achievement centers. The major findings of this survey included:

- Statewide, total DAC revenues for 1982 were $27,404,614, an increase of 5.5% over 1981. Government revenues accounted for 93.6%, family support 1.8%, and other support for 4.6% of total revenues.

- Total DAC expenditures for 1982 were $27, 203,598. Personnel costs accounted for 62.3%, transportation 13.1%, occupancy 9.7%, and program 14.8% of this total.

- Of the DACs, 31.0% (N = 33) reported operating deficits for 1982.

- Statewide, average program per diems for adults were: $22.14 (in-center) and $33.81 (home-based). The average program per diems for children were: $33.45 (in-center) and $40.79 (home-based). Transportation per diems for in-center programs averaged $4.05 for adults and $6.02 for children. The average adult total per diem (program and transportation) increased 3.4% from 1981 to 1982.

- Total licensed capacity of DACs was 6,077. Average daily attendance was 4,450 in 1982, a 0.5% increase over 1981.

- As of December 1982, total DAC enrollment was 5,399. Adults (21 years and over) accounted for 73.0% of the total DAC population.

- The majority of DAC clients live in natural or adoptive homes (44.5%) or ICF-MRs (43.3%). Nearly all children live in natural, adoptive, or foster care homes (99.1%). ICF-MRs are the residential settings of 58.2% of adult DAC clients.

- Nearly 1 in 4 of DAC clients (23.2%) were out-of-county placements in 1982. DACs reported that 76 out-of-county clients received reduced services during 1982.

- Respondents reported that 402 persons, including 82 children and 320 adults, were on waiting lists at 28 DACs. Metropolitan area DACs accounted for 88.8% of all people on waiting lists.

- A total of 528 adults were reported to be currently ready for work placements, including work activity (N = 349), sheltered work (N = 154), competitive employment (N = 21), and other (N = 4). These individuals cannot currently move to these placements for a variety of reasons including lack of available slots, reluctance on the part of parents or clients, client characteristics, and lack of community support services.

- Using an FTE of 2,080 hours, DAC personnel included 197.22 administrative FTEs, 790.04 direct service FTEs, and 115.44 support function FTEs for a total personnel complement of 1,102.70 FTEs.

V. REFERENCES

Developmental Disabilities Program. Policy analysis paper no. 6: The financial status of Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January 1982.

Developmental Disabilities Program. Policy analysis paper no. 7: The program status of Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January 1982.

Developmental Disabilities Program. Policy analysis paper no. 8: The client status of Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, January 1982.

Developmental Disabilities Program. Policy analysis paper no. 9: Summary of issues, programs, and clients in Minnesota developmental achievement centers: 1980-1982. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, February 1982.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 17: An Update to Policy Analysis Series No. 6 through 9: The Financial, Client, and Program Status of Minnesota Developmental Achievement Centers: 1982.* St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, March, 1983.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 18

THE MINNESOTA FAMILY SUBSIDY PROGRAM: ITS EFFECT ON FAMILIES WITH A DEVELOPMENTALLY DISABLED CHILD

I. INTRODUCTION

The provision of financial incentives and home-based services to assist families with developmentally disabled children is a fairly recent policy development. Support for families has emerged as a response to the spiraling costs of out-of-home placements and to a heightened awareness of the service functions that families perform for their members. The effectiveness of financial incentives and home-based services is being demonstrated and tested throughout the United States by both voluntary and public agencies (Wisconsin Council on Developmental Disabilities, 1983).

The purpose of this study is to describe the effect of the Minnesota Family Subsidy Program on families with a developmentally disabled child. The Minnesota Department of Public Welfare began the program in 1976. It was authorized by Minn. Stat. § 252.37, Subd. 4, and defined by DPW Rule 12 MCAR § 2.019:

> The program shall be for those children who, at the time of application, are residing in Minnesota and (a) who are living at home, or (b) who are residing in a state hospital or in a licensed community residential facility for the mentally retarded who, under this program, would return to their own home. Those children living at home must also be determined by the local board eligible for placement in a state hospital or a licensed community residential facility for the mentally retarded. [12 MCAR § 2.019, B(1)]

Priority is given to families of severely and multiply handicapped children who are experiencing a high degree of family stress and show the greatest potential for benefiting from the program.

The program provides grants to parent(s) in an amount equal to the direct cost of the services outlined in a service agreement. Grants are to assist in the payment of:

> . . . diagnostic assessments, homemaker services, training expenses including specialized equipment, visiting nurses' or other pertinent therapists' costs, preschool program costs, related transportation expenses, and parental relief

DEVELOPMENTAL DISABILITIES PROGRAM • DEPARTMENT OF ENERGY, PLANNING AND DEVELOPMENT
201 CAPITOL SQUARE BLDG. • 550 CEDAR STREET • ST. PAUL, MN 55101 • 612/296-4018

or child care costs not to exceed $250 per month per family. (MINN. STAT. § 252.27, Subd. 4)

The program is designed to complement, not duplicate, other community services and programs. Initially, the program included only 50 families; but in fiscal year 1982-83, it was expanded to include up to 200 families throughout Minnesota. The current legislative appropriation of $525,800 for fiscal year 1982-83 is expended in grants to 187 families. There is a lengthy waiting list for the program.

II. METHODOLOGY

A sample of 70 families was selected. Letters were sent requesting their participation in the study. Staff attempted to obtain a balanced representation of county residency and length of involvement in the program. Of the sample of 70, 38 families agreed to participate. A telephone survey was conducted with the individual identified as the primary caretaker of the developmentally disabled child in these families. In 37 cases, this was the mother; in one instance, it was the child's grandmother. The telephone interviews were completed in less than one hour. The small sample size (n = 38) means that caution should be taken in generalizing the findings to the study's total population.

The questionnaire was comprised of three sections. The first section contained 177 structured items regarding demographic information, program use, and program evaluation. The second section included four open-ended questions regarding strengths and limitations of the program. These questions provided a reliability check on the first section and allowed respondents to expand on the perceived positive aspects and shortcomings of the program. The final section consisted of information from public (DPW) records on four environmental factors: county size, county mean income, number of county residents with mental retardation, and number of residential placements (beds) for persons with developmental disabilities in the county.

III. RESULTS

A. Family Characteristics

An examination of family characteristics reveals a generally homogeneous group. Of the 38 families in the survey, 36 (95 percent) have two parents who have not been divorced nor separated. The number of children actually living at home ranges from 1 to 6. Overall, there is a total of 68 boys and 54 girls represented among the families, or approximately 20 percent more boys than girls. The sex distribution of the children with developmental disabilities reflects a similar pattern: 24 boys (63 percent) and 14 girls (37 percent).

Ages of the sample parents range from their late twenties to their fifties. None of those surveyed are over 60 years old. The average age category of the children with developmental disabilities is 5 to 9 years. Nineteen of the children (50 percent) are in this age group. The remaining children are distributed among the other categories as follows: five preschoolers (13 percent), aged 2 to 4 years; ten preadolescents (26 percent), aged 10 to 12 years; and four adolescents (11 percent), aged 13 to 17 years.

Annual family income ranges from the income categories of $5,000 or less to a high of $40,000 to $49,000. The majority of family incomes (84 percent) are distributed between $10,000 and $24,000.

All of the 36 fathers in the study are employed; almost all (94 percent) work full time. The remaining 6 percent (N = 2) are employed part time. Mothers tend to be employed outside the home far less frequently. Of those mothers who do work outside the home, 10 are employed (26 percent) part time and 6 full time (16 percent). The other 22 are full-time homemakers (58 percent).

In terms of the developmentally disabled child for whom the family receives a subsidy, the effect of the child's handicapping condition on his or her ability to function is severe. Over three-fourths (n = 29) of the families reported that the child's condition greatly affects his or her ability to toilet independently. Of those persons responding to the question regarding the child's ability for self-care, such as self-feeding and self-dressing, 23 (93 percent) responded that the disability affected these skills. Twenty-two (58 percent) reported that the child's handicapping conditions also greatly affect his or her ability to relate to adults, while twenty-one (55 percent) reported it greatly affects the child's ability to walk. The only functioning abilities which were not greatly affected in a majority of children were the ability to see and hear. Of the 37 respondents, 23 (62 percent) indicated that the disabling condition does not greatly affect the child's sight or hearing (see Table 1).

Table 1
The Effect of the Developmentally Disabled
Child's Condition on Ability to Function
(Minnesota Family Subsidy
Study: 1982; n = 38)

AFFECTED FUNCTIONAL ABILITY	NUMBER OF RESPONDENTS	LEVEL OF EFFECT		
		None/Small (percent)	Some (percent)	Great/Very Great (percent)
Toilet independently	38	18%	5%	77%
Walk	38	34%	11%	55%
See	37	62%	11%	27%
Hear	37	62%	27%	11%
Play with other children	38	8%	16%	76%
Relate to adults	38	13%	29%	58%
Other[a]	25	0%	8%	92%

[a] Other includes self-feeding, self-dressing, and self-control.

B. Family Resources

Family and community resources identified by respondents as being most helpful to them with respect to the care of their developmentally disabled children are the public school, their other children, and county welfare departments (see Table 2).

Table 2
Extent to Which Identified Resources Are Helpful to Respondents
(Minnesota Family Subsidy Study: 1982; n = 38)

TYPE OF RESOURCES	NUMBER OF RESPONDENTS	EXTENT OF HELP		
		None/Small (percent)	Some (percent)	Great/Very Great (percent)
Schools	37	11%	22%	67%
Children	34	29%	24%	47%
County welfare agency	37	54%	11%	35%
Parents	36	58%	25%	17%
State hospital	35	80%	3%	17%
Sisters	31	78%	6%	16%
Parents-in-law	35	78%	11%	11%
Friends	38	68%	21%	11%
Developmental Achievement Center	32	85%	6%	9%
Brothers	31	91%	3%	6%
Sisters-in-law	35	88%	6%	6%
Public health center	35	88%	6%	6%
Religious organization	38	84%	13%	3%
Mental health center	33	94%	3%	3%

C. Subsidy Benefits

Families receive payments ranging from $76 to $250 per month with over two-thirds (n = 26) receiving the maximum allowable amount of $250. Most of the families (n = 19, 49 percent) have participated in the program for less than two years, reflecting the program's recent expansion. Only 4 families (10 percent) have participated in the program since its inception or very early years, while the remaining 15 have participated in the program from two to three years.

D. Out-of-Home Placement Plans

Almost none of the families (n = 37, 97 percent) have ever placed their developmentally disabled child out of the home. The family who had a previous placement did so primarily because of the child's low functional level. The child subsequently returned home because of improved functioning and because the subsidy had become available. Although only two families indicated they presently plan to place their child in long-term care in a foster home or institution, one-half of the families (n = 19) stated that they anticipated making such plans in the future.

E. Program Usefulness

Thirty-seven of the respondents (97 percent) reported that the Family Subsidy Program is of "great or very great help." One family (3 percent) rated the program as being of "some help."

Respondents indicated that the subsidy program assists in relieving financial, psychological, and social stresses. Participating families felt that the subsidy was of great or very great help in the following activities: purchasing special items needed by the child (n = 36, 95 percent); attending to the needs of the developmentally disabled child (n = 35, 92 percent); purchasing babysitter services or respite care (n = 27, 71 percent); doing things outside the home, such as going to movies or taking walks (n = 23, 61 percent); doing things with other children in the family and their spouse (n = 22, 58 percent); and attending to the needs of other family members (n = 21, 55 percent).

With regard to other dimensions of family functioning and coping, comparison of respondents' perceptions of their situation before and after program participation leaves little doubt as to the positive effects of the program. For example, only two respondents (5 percent) said they were able to purchase special items needed by the developmentally disabled child to a great or very great extent before receiving the subsidy, contrasted with 36 (95 percent) after receiving the subsidy. Other purchases and activities were affected similarly; only one family (3 percent) said they were able to purchase respite care to a great or very great extent before, contrasted with 27 (71 percent) after; attend to the needs of the developmentally disabled child, 2 families (5 percent) before, 35 (92 percent) after; and attend to the needs of other family members, 6 families (16 percent) before, 21 (55 percent) after.

The subsidy was not perceived as having a great impact on ability to keep up with household chores for 24 respondents (63 percent) or ability to work outside the home for 14 mothers (37 percent). At the same time, respondents felt that they did manage better along these dimensions after they received the subsidy than before.

While the program enables families to cope and function better and to care for their developmentally disabled child at home, the subsidy does not cover all of the expenses entailed in the child's care. Almost two-thirds (n = 24) of the families reported additional expenses in the categories covered by the subsidy. These costs include: medications, education, special equipment, baby sitting, special clothing, respite care, special food, and transportation.

F. Ratings of Services

When asked to rate the services purchased by the subsidy grants in terms of quality, availability, accessibility, convenience, and cost, such services were rated highly on all five counts. Indeed, comparing the overall mean ratings of subsidy purchased services with those of services provided by family and friends, and community agencies, subsidy purchased services were more highly rated (see Table 3).

G. Possible Program Improvements

Thirty-four families (89 percent) said they thought the program should be expanded to include young adults. One respondent, however, felt the program should not be expanded while there are families with young children waiting to be served by the program.

Respondents offered suggestions to improve the application process, increase the program's publicity, and improve the benefits provided. The suggestions included:

1. Yearly applications (rather than every six months);
2. Optional phone renewal of the applications;
3. Education of local social and health service staffs about the program;
4. Use parents to publicize the program;
5. Increase benefits for families with greater needs; and
6. Increase allowed benefits to include long distance medical calls and emergency respite care.

Table 3
Family Rating of Subsidy Purchased Services (SPS), Services Provided by Family and Friends (F&F), and Community Agencies (CA)
(Minnesota Family Subsidy Study: 1982; n = 38)

	FAMILY RATING								
	Very Poor/Poor			Fair			Good/Excellent		
SERVICE CRITERIA	SPS (percent)	F&F (percent)	CA (percent)	SPS (percent)	F&F (percent)	CA (percent)	SPS (percent)	F&F (percent)	CA (percent)
Quality	0%	8%	13%	5%	14%	11%	95%	78%	76%
Availability	11%	35%	13%	16%	27%	16%	74%	38%	71%
Accessibility	11%	30%	21%	22%	30%	16%	68%	40%	63%
Convenience	8%	43%	16%	24%	22%	16%	68%	35%	68%
Cost	19%	9%	13%	3%	11%	3%	79%	81%	84%

IV. SUMMARY

In summary, the study's findings show that the effects of the subsidy are considerable on all of the measures used: (a) enabling families to care for their developmentally disabled child at home; (b) degree of general helpfulness of the subsidy to families; (c) families' functioning and coping capacities (financial, social, and psychological); and (d) changes or improvements in families' functioning and coping capacities (financial, social, and psychological).

The subsidy increased the families' ability to: (a) purchase items needed by the child; (b) attend to the developmentally disabled child's needs; (c) purchase respite care and baby sitting services for the child; (d) do things outside the home they enjoy; (e) do things with other family members; (f) enjoy the company of family members; (g) be with friends occasionally; and (h) attend to the needs of family members. Dimensions of the family functioning on which the subsidy seems to have had the least effect include enabling mothers to: (a) work outside the home; (b) do things at home they enjoy; and (c) keep up with household chores. All of these are activities that compete with the needs of the developmentally disabled child and family members for parents' time and energies. At the same time, it should be noted that although the program has not had a tremendous effect on the employment status of the study's mothers, it has enabled some mothers to work outside the home.

Respondents suggested that the program might be improved by simplifying the application process, increasing publicity about the program, and increasing the maximum level of benefits.

The process of deinstitutionalization includes prevention of institutional admissions as well as returning institutionalized residents to the community (National Association of Superintendents of Public Residential Facilities, 1974). Support services for families who care for disabled members at home are an essential component of a comprehensive deinstitutionalization policy. As Representative John Brandl noted in a recent *Corporate Report* article, such services can be a cost-effective as well as a humane alternative to institutional care in a period of fiscal cutbacks (Brandl, 1982).

V. REFERENCES

Bates, Marion V. State family support/cash subsidy programs. Madison, Wisconsin: Wisconsin Council on Developmental Disabilities, 1983.

Brandl, J. E. Toward a fiscal agenda for Minnesota. Corporate Report, June 1982, 40-42.

National Association of Superintendents of Public Residential Facilities for the Mentally Retarded. Contemporary Issues in Residential Programming. Washington, DC: President's Committee on Mental Retardation, 1974.

This paper is based on a report by Shirley Zimmerman, Ph.D., Assistant Professor, Department of Family Social Science, University of Minnesota. Her study of the Family Subsidy Program was funded by the Developmental Disabilities Program and conducted in cooperation with the Developmental Disabilities Program and the Department of Public Welfare.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, Department of Energy, Planning and Development.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 18: The Minnesota Family Subsidy Program: Its Effect on Families with a Developmentally Disabled Child.* St. Paul, MN: Developmental Disabilities Program, Department of Energy, Planning and Development, May, 1983.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 19

AN UPDATE TO POLICY ANALYSIS SERIES NO. 4 AND 15

COST FUNCTION ANALYSIS OF MINNESOTA INTERMEDIATE CARE FACILITIES FOR MENTALLY RETARDED (ICF-MR) PER DIEMS: 1981

This policy analysis paper presents the findings of a study of Minnesota community-based ICF-MR per diem costs. The study used 1981 data from the departments of Health and Welfare to identify factors that could explain differences in per diem rates found among ICF-MR facilities. The current study updates the work completed in two previous analyses of 1979 and 1980 data. (*Policy Analysis Paper No. 4*, 1981 and *Policy Analysis Paper No. 15*, 1983)

Several factors underscore the importance of identifying the cost implications of community-based services for developmentally disabled people. These factors include: (1) continuing federal and state budgetary problems which mean that existing social welfare programs must be managed as effectively as possible, and (2) the *Welsch v. Levine* Consent Decree mandate to further reduce the number of mentally retarded people living in state institutions by 1987.

A Legislative Audit Commission (LAC) report, *Evaluation of Community Residential Programs for Mentally Retarded Persons* (February 11, 1983), as well as recently passed legislation emphasized the importance of analyzing ICF-MR facility costs. The LAC report criticized the state's heavy reliance on residential facilities and concluded that overreliance on the ICF-MR model has been very costly in Minnesota. Recent legislation recognized the need to control escalating costs in the field included: (1) legislation which allowed the state to pursue a Title XIX Home and Community-Based waiver to fund alternative residential and other community-based services; (2) legislation which established a construction moratorium on ICF-MR facilities and set a total licensed capacity of 7,000 beds in both state institutions and community ICF-MR facilities by 1986; and (3) legislation which required changes in improvements in Rule 52 standards as recommended by the LAC. (Laws of Minnesota 1983, Chapter 312, Article 9)

I. ICF-MR FACILITIES IN MINNESOTA

Intermediate Care Facilities-Mental Retardation (ICF-MRs) are licensed under Department of Public Welfare (DPW) Rule 34 standards. They are also licensed by the Department of Health as supervised living facilities (SLFs) to provide food, care, and lodging on a 24-hour basis. ICF-MRs are supported primarily by the federal Medicaid (Title XIX) program and are reimbursed under DPW Rule 52.

One-third of the approximately 281 community facilities operating during 1980 were licensed to serve 6 or fewer residents. An additional 30.6 percent served 7 to 12 residents. Over one-third (N = 103; 36.7 percent) of the facilities operating in 1981 had 13 or more residents.

While the largest number of facilities had 6 residents or less, this group of facilities accounted for only 11.8 percent of the state's total community ICF-MR capacity. Conversely, the 9 largest facilities represented only 3.7 percent of the total number of facilities in 1981 but accounted for nearly 1 out of 4 community ICF-MR beds. Table 1 and Figure 1 show the distribution of ICF-MRs operating in 1981 by age categories and licensed capacity.

Table 1
Number and Licensed Capacity of Minnesota
ICF-MRs by Size Category: 1981

	FACILITIES		LICENSED CAPACITY	
SIZE OF FACILITY	Number	Percent	Total	Percent
6 or fewer residents	92	32.7%	551	11.8%
7 to 12 residents	86	30.6	832	17.8
13 to 16 residents	61	21.7	899	19.3
17 to 32 residents	10	3.6	271	5.8
33 to 64 residents	21	7.5	985	21.1
65 or more residents	11	3.9	1,131	24.2
TOTAL	281	100.0%	4,669	100.0%

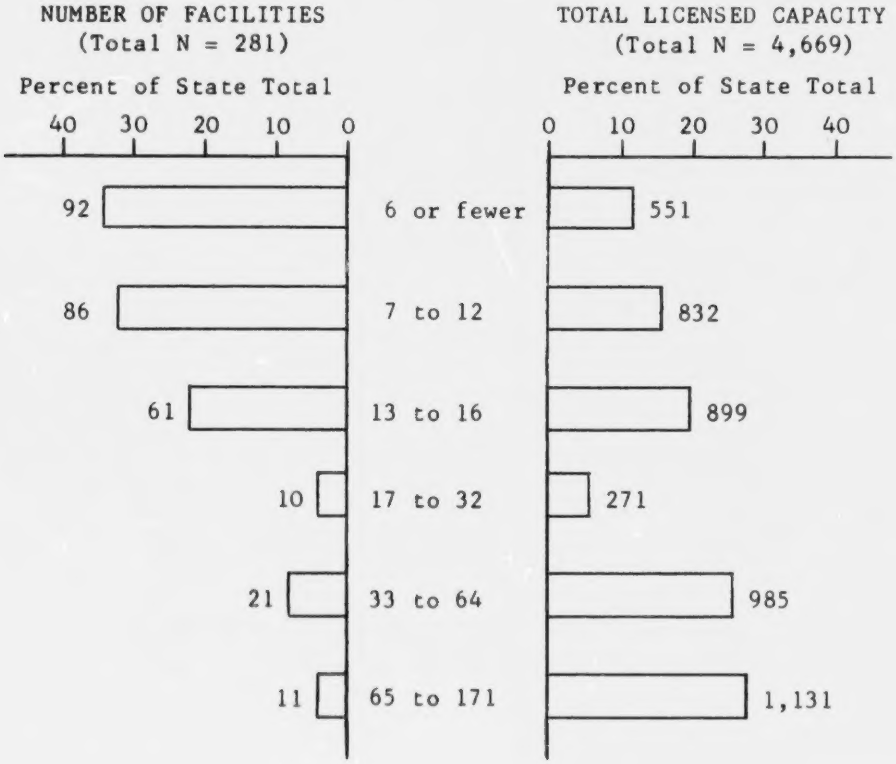


Figure 1: Facility Size

II. METHODOLOGY

The data for this study came from two primary sources: Department of Public Welfare Rule 52 cost reports on file in the Long-Term Care Rate Division; and the data files of the Quality Assurance and Review Program within the Department of Health.

DPW Rule 52 establishes the standards for determining reimbursement (per diem) rates for providers of ICF-MR residential services. Providers must submit a cost report each year. The per diem rate for each facility is based upon actual, allowable expenses incurred during the preceding year plus any allowable known cost changes which will occur during the upcoming year. For the 1982-83 state biennium, per diem rate increases were limited to 10 percent per year. The 4 percent reduction ordered by the Legislature was in effect from January 1983 through June 1983. As of July 1983, per diem rate increases are limited to 5 percent annually.

The Quality Assurance and Review (QAR) program is a federally mandated program which annually surveys facilities which are reimbursed under the federal Medicaid program. QAR surveys report on resident dependency levels, potential for restoration, and treatment programs. They also indicate the appropriateness of current placements and the potential for movement into less restrictive living arrangements.

This analysis of per diem rates includes 261 of the 281 community ICF-MR facilities operating during 1981. Eighteen facilities were excluded from this analysis because complete QAR data for those facilities were not available, and two facilities were excluded because they are reimbursed under Rule 49.

The statistical methodology employed in this study is similar to the two previous cost studies (*Policy Analysis Paper No. 4*, 1981 and *Policy Analysis Paper No. 15*, 1983). The above analyses are a replication of the cost function analyses component of a national study on the costs of residential care (Wieck & Bruininks, 1980). That report contains a thorough review of the literature on cost studies and a discussion of the "theory" which underlines this study's treatment of cost-related variables.

Statistical techniques are not definitive. They cannot "prove" cause-effect relationships, but they can help to estimate or predict cause/effect relationships with greater confidence.

As in previous studies, cost factors were defined according to three broad categories: location, organizational structure, and resident characteristics. The study examines a number of variables and their impact upon cost using two statistical techniques: (1) analysis of variance and (2) multiple regression.

III. ANALYSIS OF VARIANCE

The first objective of this study is to test hypotheses about relationships between selected variables, such as facility size or resident characteristics, and per diem rates (cost). Through a comparison of mean values,[1] one-way analysis of variance attempts to determine to what extent facility per diem rates differ from one another; and then whether or not those differences are "significant" enough statistically to allow certain assumptions about cost-influencing variables. The hypotheses and results of these analyses are summarized below.

A. Locational Factors

H_{01}: There are no differences in the per diem rates for community ICF-MRs between Minnesota's 13 economic development regions.

---

[1] "Mean values" here refers to "average" per diem rates of group homes.

According to the one-way analysis of variance test, there were significant differences ($p < .01$) in the per diem rates of facilities located in the various regions of the state. The highest per diem average was found in the seven-county Minneapolis-St. Paul region at $55.90. The lowest average per diems were found in regions Six E ($33.90), One ($39.20), and Seven W (439.70). The analysis of variance and table of means and standard deviations are presented in Tables 2 and 3. This finding is similar to the two previous studies which also showed highest mean per diem in Region Eleven; the lowest in Region Six.

Table 2
Summary of Analysis of Variance of Minnesota
ICF-MR Per Diem Rates by Region: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	12	10,899	908	5.18[a]
Within groups	248	43,518	175	
TOTAL	260	54,417		

[a] $p < .01$.

Table 3
ICF-MR Mean Per Diems by Region: 1981

Region	Mean	Standard Deviation	Number of Facilities
One	$39.20	10.90	9
Two	$47.70	10.90	6
Three (Duluth)	$44.50	8.60	28
Four (Moorhead)	$43.70	8.80	26
Five	$48.60	5.30	5
Six E	$33.90	5.60	11
Six W	$47.40	9.00	4
Seven E	$51.30	12.20	4
Seven W (St. Cloud)	$39.70	10.50	16
Eight	$49.10	15.10	12
Nine (Mankato)	$48.10	6.50	15
Ten (Rochester)	$52.70	17.00	32
Eleven (Mpls.-St. Paul)	$55.90	15.90	93

Pooled standard deviation = 13.20.

H_{02}: There is no relationship between per diem rates of facilities and their location in an urban or nonurban area.

A second locational variable examined was urban versus nonurban/rural location. An urban area was defined as, according to the Census Bureau (1982), ". . . comprises an incorporated place and densely settled surrounding area that together have a minimum population of 50,000." There are seven urban areas in Minnesota: Duluth, Moorhead, East Grand Forks, LaCrescent, Rochester, St. Cloud, and the Minneapolis-St. Paul metropolitan area.

Both *Policy Analysis Papers No. 4* and *15* indicated that there was a statistical difference between per diems of facilities in urban and nonurban locations. The current study indicates that for 1981 data there was also a statistical difference ($p < .01$) between facilities located in urban areas and those outside urban settings. The average per diem for facilities in urban areas was $54.30, and the average per diem for facilities in nonurban or rural areas was $45.20. The average per diem in urban areas was 20 percent higher than that of nonurban settings. Part of these differences may be attributed to the higher cost of goods and services in urban areas when compared to nonurban areas. This analysis did not make any adjustments for these differences. Tables 4 and 5 present the summary of analysis of variance test and the table of means and standard deviations.

Table 4
Summary of Analysis of Variance of Minnesota
ICF-MR Per Diem Rates
by Urban/Nonurban Location: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	5,325	5,325	28.10[a]
Within groups	259	49,092	190	
TOTAL	260	54,417		

[a] $p < .01$.

Table 5
ICF-MR Mean Per Diems by Urban/Nonurban
Location: 1981

Location	Mean	Standard Deviation	Number of Facilities
Urban	$54.30	15.70	117
Nonurban	$45.20	11.90	144

Pooled standard deviation = 13.80.

B. Organizational Factors

Eight organizational factors were examined in this study for their probable impact upon per diem rates: (1) facility size, (2) licensed capacity, (3) occupancy rate, (4) staff-resident ratios, (5) profit/nonprofit status, (6) system affiliation, (7) type of license, and (8) years of operation.

> H_{03}: There is no relationship between per diem rates of ICF-MR residential services and facility size.

For the purpose of this study, size is the actual number of clients present in the facility over the course of the year. "Size" is very similar to "licensed capacity" because most ICF-MRs in Minnesota operate near or at capacity.

Facilities were grouped into six categories: (1) 6 or fewer residents, (2) 7 to 12 residents, (3) 13 to 16 residents, (4) 17 to 32 residents, (5) 33 to 64 residents, and (6) 65 or more residents.

There were significant differences ($p < .01$) in the per diem rates according to these size categories. The highest per diems were found among larger ICF-MRs which served 17 or more people and those facilities serving 6 or fewer residents which are typically newer facilities. The lowest per diem was found in very large facilities (more than 64 beds) which were typically older facilities. Tables 6 and 7 present the summary analysis of variance and the table of means and standard deviations.

Table 6
Summary of Analysis of Variance of Minnesota ICF-MR Per Diem Rates by Size Categories: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	5	4,206	841	4.27[a]
Within groups	255	50,211	197	
TOTAL	260	54,417		

[a] $p < .01$.

Table 7
ICF-MR Mean Per Diems by Size Categories: 1981

Size Category	Mean	Standard Deviation	Number of Facilities
6 or fewer residents	$52.50	10.80	83
7 to 12 residents	$46.30	12.40	84
13 to 16 residents	$46.00	13.50	55
17 to 32 residents	$58.50	25.70	12
33 to 64 residents	$55.80	23.50	19
65 or more residents	$43.10	11.10	8

Pooled standard deviation = 14.00.

H_{04}: There is no relationship between per diem rates of ICF-MR residential services and licensed capacity.

ICF-MRs in Minnesota typically operate at or near licensed capacity; the average occupancy rate for 1981 was 98 percent. The results of a one-way analysis of variance, consequently, were very similar to the results for size categories. There was a significant difference ($p < .01$) in the per diem rates according to the categories of facilities by licensed capacity. The trends again indicate higher per diem rates for smaller facilities, decreasing per diem rates in midsize facilities, and then increasing per diem rates for larger facilities except for the extremely large facilities (64 beds or larger). Tables 8 and 9 present the summary of the analysis of variance test and the table of means and standard deviations.

Table 8
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Licensed Capacity: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	5	4,319	864	4.40[a]
Within groups	255	50,098	197	
TOTAL	260	54,417		

[a] $p < .01$.

Table 9
ICF-MR Mean Per Diems by Licensed Capacity: 1981

Licensed Capacity	Mean	Standard Deviation	Number of Facilities
6 or fewer residents	$52.40	10.70	82
7 to 12 residents	$46.40	12.40	83
13 to 16 residents	$45.80	13.40	57
17 to 32 residents	$57.90	28.20	10
33 to 64 residents	$56.40	22.40	21
65 or more residents	$43.10	11.10	8

Pooled standard deviation = 14.00.

H_{05}: There is no relationship between per diem rates of ICF-MR residential services and occupancy rate.

A one-way analysis of variance test did not reveal any significant statistical difference among facility per diem rates when facilities were compared by occupancy rate. Statewide, community ICF-MRs operated at 98 percent of their licensed capacity in 1981. The lowest occupancy rate was 46 percent; the highest was 100 percent. Only 11 ICF-MRs operated at less than 90 percent.

H_{06}: There is no relationship between facility per diem rates and the direct care staff-resident ratio.

The staff-resident ratio is calculated by dividing the number of direct care staff(full-time equivalent) by the number of residents (size).

Previous national studies and the previous two policy papers indicated that per diem rates are greatly influenced by personnel costs. The number and type of staff are, in turn, influenced by client characteristics and needs. These factors such as level of functioning, staffing patterns required by regulatory standards, and behavior characteristics are difficult to analyze due to the influence of other variables. The staff-resident ratio picks up influence of the other variables; therefore, exact cause-effect relationship measurement is difficult.

In this study, facilities were grouped according to five categories based upon staff-resident ratios: (1) less than 0.30; (2) 0.30 to 0.49; (3) 0.50 to 0.69; (4) 0.70 to 0.99; and (5) greater than 1.00. The analysis indicated that there were significant differences ($p < .01$) among facilities when staff-resident ratios were compared. The lowest average per diem ($34.26) was found among facilities with the lowest ratios, and the highest average per diem ($74.94), which was more than double the lowest, was found among facilities with ratios greater than 1.00. As with size categories, the lowest per diem was found among the larger, older facilities. Tables 10 and 11 summarize the results of the one-way analysis of variance test.

Table 10
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Staff-Resident Ratios: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	F Score
Between groups	4	29,486	7,371.6	75.70[a]
Within groups	256	24,931	97.4	
TOTAL	260	54,417		

[a] $p < .01$.

Table 11
Mean Per Diem Rates of Minnesota ICF-MRs
by Staff-Resident Ratio: 1981

Staff-Resident Ratio	Mean	Standard Deviation	Number of Facilities
Less than .30	$34.26	7.10	14
.30 to .49	$39.44	8.01	61
.50 to .69	$47.79	6.65	109
.70 to .99	$54.03	14.69	48
Greater than .99	$74.94	12.02	29

Pooled standard deviation = 9.87.

H_{07}: There is no relationship between per diem rates of ICF-MR residential services and profit/nonprofit status.

A one-way analysis of variance did not reveal any significant differences in per diem rates when facilities were compared according to profit/nonprofit status. The average per diem rate for nonprofit homes was $49.40, which was slightly higher than the average per diem rate for proprietary facilities at $49.10. Tables 12 and 13 summarize the results of the one-way analysis of variance test and table of means and standard deviations.

Table 12
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Profit/Nonprofit Status: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	5	5	0.03
Within groups	259	54,412	210	
TOTAL	260	54,417		

Table 13
Mean Per Diems of Minnesota ICF-MRs
by Profit/Nonprofit Status: 1981

Type of Status	Mean	Standard Deviation	Number of Facilities
Profit	$49.10	13.10	134
Nonprofit	$49.40	15.80	127

Pooled standard deviation = 14.50.

> $H_0 8$: There is no relationship between per diem rates of ICF-MR residential services and system affiliation.

For the purpose of this study, a facility was identified as a member of a system if the organization which owned the home also owned at least one other ICF-MR facility in Minnesota. A facility which was owned by an organization with other nursing or boarding homes or out-of-state facilities was not identified as being a member of a system.

During 1981, the number of beds within individual systems ranged from a low of 12 to over 500. Over 72 percent of the 261 facilities were members of a system in 1981. All the additional facilities included in this study (N = 31) compared to the 1980 study were members of a system.

No significant differences were found between facilities which were members of a system and those which were not at the $p < .01$ range, but significant differences were identified at the $.01 < p < .05$ range. The average per diem for a nonsystem facility was $45.70, compared to $50.60 for facilities which are members of a system. Tables 14 and 15 present a summary of the results of the one-way analysis and table of means and standard deviations. The results are similar to the ICF-MR cost study on 1981 data (*Policy Analysis Paper No. 15*) and the findings of Wieck and Bruininks (1980) which also reported higher per diems for facilities which were members of a system.

Table 14
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by System Membership: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	1,256	1,256	6.12[a]
Within groups	259	53,161	205	
TOTAL	260	54,417		

[a] $.01 < p < .05$.

Table 15
Mean Per Diems of Minnesota ICF-MRs
by System Membership: 1981

Type of Membership	Mean	Standard Deviation	Number of Facilities
System member	$50.60	14.40	189
Not member of system	$45.70	14.00	72

Pooled standard deviation = 14.30.

H_{0_9}: There is no relationship between per diem rates of residential services and type of license (Class A or Class B).

ICF-MRs in Minnesota are licensed either as Class A or Class B facilities depending upon the mobility and self-preservation skills of the residents (i.e., the ability to leave the building during an emergency). Class B facilities are for individuals who do not possess such skills. Consequently, Class B facilities may require special structural characteristics and/or increased staffing patterns.

The one-way analysis of variance test indicated significant differences ($p < .01$) in the per diem rates of Class B facilities when compared to per diem rates for ICF-MRs licensed as Class A facilities. The average per diem for 32 Class B facilities was $67.20, 43.6 percent higher than the Class A average per diem of $46.80. The average size of a Class B facility was 31.9 compared to the average size of a Class A of 14.0. Also, the staff-resident ratio for Class B facilities was .98, more than 62 percent larger than the Class A facilities of .602. QAR data suggest that some of the Class B facilities are serving residents with higher dependency levels. The summary of the analysis of variance and the table of means and standard deviations are shown in Tables 16 and 17.

Table 16
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Type of License: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	1	11,694	11,694	70.89[a]
Within groups	259	42,723	165	
TOTAL	260	54,417		

[a] $p < .01$.

Table 17
Mean Per Diems of Minnesota ICF-MRs
by Type of License: 1981

Type of License	Mean	Standard Deviation	Number of Facilities
Class A license	$46.80	11.40	229
Class B license	$67.20	20.60	32

Pooled standard deviation = 12.80.

H_{010}: There is no relationship between per diem rates of ICF-MR residential services and years of operation.

As previous studies in this area indicate (Piasecki et al., 1978), newer or recently opened facilities experience larger per diems due to increased start-up costs.

Years of operation were calculated by subtracting the year and month in which the facility was first licensed by the Department of Public Welfare from the year and month of the facility's 1981 fiscal year end. The years of operation were categorized into five groups: (1) less than 1.0 year; (2) 1.1 to 3.0 years; (3) 3.1 to 5.0 years; (4) 5.1 to 8.0 years; and (5) longer than 8.0 years.

The one-way analysis of variance revealed significant differences ($p < .01$) among the groups. Higher per diems were associated with more recently opened homes; and lower per diems with older facilities. However, facilities with 1.0 to 3.0 years of operation had the highest average per diem at $55.00. Facilities with less than 1.0 year of operation had the second highest average at $53.50. Tables 18 and 19 summarize the results of the analysis of variance test and present the table of means and standard deviations.

Table 18
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Years of Operation: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	6,122	1,530	8.11[a]
Within groups	256	48,295	189	
TOTAL	260	54,417		

[a] $p < .01$.

Table 19
Mean Per Diems of Minnesota ICF-MRs
by Years of Operation: 1981

Number of Years	Mean	Standard Deviation	Number of Facilities
Less than 1.0 year	$53.50	11.80	19
1.0 to 3.0 years	$55.00	13.20	45
3.1 to 5.0 years	$52.50	16.10	63
5.1 to 8.0 years	$47.60	13.90	88
Longer than 8.0 years	$40.70	10.90	46

Pooled standard deviation = 13.70.

C. Resident Factors

Six variables related to resident characteristics or functioning were compared against per diem rates: (1) average age of residents; (2) percentage of residents who are severely or profoundly mentally retarded; (3) percentage of residents who are completely fed; (4) percentage of residents with behavior problems; (5) percentage of residents who are not toilet trained; and (6) percentage of clients who are nonambulatory. A greater level of resident dependency suggests a need for more direct care services, increasing staff ratios, and consequently increasing costs. According to QAR data, 14 facilities (all Class B) accounted for nearly all the residents who are reported to have higher levels of dependency in the areas of feeding and ambulation.

> H_{011}: There is no relationship in the per diem rates of ICF-MR resident services and the age of residents.

A one-way analysis of variance test was run on facilities categorized by the average age of their residents. Five age groups were defined: (1) less than 16 years; (2) 16 to 25 years; (3) 26 to 35 years; (4) 36 to 45 years; and (5) greater than 45 years of age. Significant differences ($p < .01$) were revealed by the analysis. As with previous studies, an inverse relationship was found between resident age and per diem. Facilities serving children had the highest average per diem rate at $72.60; facilities whose residents averaged more than 45 years of age had the lowest average per diem rates at $42.60. The results of the one-way analysis and the table of means and standard deviations are shown in Tables 20 and 21.

Table 20
Summary of Analysis of Variance in Minnesota ICF-MR
Per Diems by Average Age of Residents: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	13,519	3,380	21.15[a]
Within groups	256	40,898	160	
TOTAL	260	54,417		

[a] $p < .01$.

Table 21
Mean Per Diems of Minnesota ICF-MRs
by Average Age of Residents: 1981

Average Age	Mean	Standard Deviation	Number of Facilities
Less than 16 years	$72.60	19.60	16
16 to 25 years	$54.50	15.10	50
26 to 35 years	$49.00	11.80	86
36 to 45 years	$44.10	10.30	79
Greater than 45 years	$42.60	11.40	30

Pooled standard deviation = 12.60.

H_{012}: There is no relationship between per diem rates of ICF-MR residential services and the proportion of residents who are severely or profoundly mentally retarded.

The proportion of residents who were classified as severely or profoundly mentally retarded was calculated for each facility using QAR data. Significant differences ($p < .01$) were indicated by the results of the one-way analysis of variance test. The 45 facilities which reported that 75 percent to 100 percent of their residents were severely or profoundly mentally retarded had the highest average per diem of any group at $57.40. Tables 22 and 23 present the analysis of variance summary and table of means and standard deviations.

Table 22
Summary of Analysis of Variance of Minnesota ICF-MR
Per Diems by Proportion of Residents Severely
or Profoundly Mentally Retarded: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	6	4,720	787	4.02[a]
Within groups	254	49,697	196	
TOTAL	260	54,417		

[a] $p < .01$.

Table 23
Mean Per Diems of Minnesota ICF-MRs
by Proportion of Residents Severely
or Profoundly Mentally Retarded: 1981

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$49.60	14.40	49
6 to 9 percent	$44.10	5.10	10
10 to 19 percent	$52.60	10.00	16
20 to 39 percent	$46.50	14.30	68
40 to 49 percent	$44.50	10.30	31
50 to 74 percent	$48.20	12.60	42
75 to 100 percent	$57.40	18.30	45

Pooled standard deviation = 14.00.

H_{013}: There is no relationship between per diem rates of ICF-MR residential services and the proportion of residents who must be completely fed.

Resident dependency levels were again provided by QAR data from the Department of Health. As stated earlier, increased resident dependency levels suggest greater staffing ratios and higher costs. Facilities were categorized according to the proportion of residents who must be completely fed. Most facilities (N = 247; 95 percent) reported that 6 percent or fewer of the residents required complete feeding. The results of the one-way analysis indicated significant differences ($p < .01$). The five facilities with dependency levels of 40 percent or more had the highest average per diem at $92.90. The results of the analysis of variance and the table of means and standard deviations are reported in Tables 24 and 25.

Table 24
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Completely Fed: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	F Score
Between groups	3	15,983	5,328	35.62[a]
Within groups	257	38,434	150	
TOTAL	260	54,417		

[a] $p < .01$.

Table 25
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Completely Fed: 1981

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$47.50	11.90	247
6 to 19 percent	$73.30	14.40	4
20 to 39 percent	$75.10	22.70	5
More than 39 percent	$92.90	15.00	5

Pooled standard deviation: 12.20.

$H_{0_{14}}$: There is no relationship between per diem rates of ICF-MR residential services and the proportion of residents who have severe behavior problems.

Facilities were classified into five groups according to the proportion of residents who were reported to have severe behavior problems.[1] Significant differences ($p < .01$) were indicated by the one-way analysis of variance test. Facilities reporting that more than 50 percent of the residents had severe behavior problems had the highest per diems. Tables 26 and 27 summarize the results of the one-way analysis of variance.

---

[1] Severe behavior problems were defined as ". . . disturbs others/runs away, aggressive verbally, threatens, steals, destructive, assaultive/self-injurious behaviors."

Table 26
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents with Severe Behavior Problems: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	4	3,463	866	4.35[a]
within groups	256	50,954	199	
TOTAL	260	54,417		

[a] $p < .01$.

Table 27
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents with Severe Behavior Problems: 1981

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 6 percent	$47.00	9.80	66
6 to 19 percent	$48.10	14.90	75
20 to 34 percent	$48.90	13.70	69
35 to 49 percent	$48.00	20.50	22
More than 49 percent	$59.40	15.30	29

Pooled standard deviation = 14.10.

$H_{0}{}^{15}$: There is no relationship between per diem rates of ICF-MR residential services and the proportion of residents who are not toilet trained.

Facilities were categorized according to the proportion of residents who were not toilet trained. Of the 261 facilities, 239 had less than 3 percent of their residents not toilet trained. Of the remaining 22 facilities, the highest average per diem was associated with those facilities in which more than 25 percent of the residents were not toilet trained. The results of the one-way analysis which reported significant differences ($p < .01$) are reported in Tables 28 and 29.

Table 28
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Not Toilet Trained: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	F Score
Between groups	3	14,211	4,737	30.28[a]
Within groups	257	40,206	156	
TOTAL	260	54,417		

[a] $p < .01$.

Table 29
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Not Toilet Trained: 1981

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 3 percent	$47.10	11.70	239
3 to 12 percent	$65.60	20.30	9
13 to 25 percent	$70.80	19.30	3
More than 26 percent	$79.80	19.60	10

Pooled standard deviation = 12.50.

$H_{0_{16}}$: There is no relationship between per diem rates of ICF-MR residential services and the proportion of residents who are nonambulatory.

Department of Health QAR data were used to group facilities according to the proportion of residents who were nonambulatory: (1) less than 10 percent; (2) 10 percent to 19 percent; (3) 20 percent to 39 percent; and (4) more than 39 percent. Over 95 percent (N = 241) of the facilities reported low proportions of nonambulatory residents. The results of the one-way analysis test indicated significant differences ($p < .01$) and are reported in Tables 30 and 31.

Table 30
Summary of Analysis of Variance of Minnesota ICF-MR Per Diems by Proportion of Residents Who are Nonambulatory: 1981

Source of Variance	Degrees of Freedom	Sum of Squares	Mean Squares	*F* Score
Between groups	3	17,739	5,913	41.43[a]
Within groups	257	36,678	143	
TOTAL	260	54,417		

[a] $p < .01$.

Table 31
Mean Per Diems of Minnesota ICF-MRs by Proportion of Residents Who Are Nonambulatory: 1981

Proportion	Mean	Standard Deviation	Number of Facilities
Less than 10 percent	$47.10	11.50	241
10 to 19 percent	$60.10	17.20	6
20 to 39 percent	$66.10	11.20	4
More than 39 percent	$87.70	18.00	10

Pooled standard deviation = 11.90.

V. COST-FUNCTION ANALYSIS

The first portion of this study involved the use of a statistical technique called one-way analysis of variance which defined groups of facilities according to selected variables, and compared mean per diems of groups based only upon those single factors. Cost factors, however, are often interrelated; and two or more variables acting together may influence the cost of residential care services.

The second objective of this study will be to develop an explanation of cost relationships using a cost-function approach. A cost-function is the testing of statistical relationships between inputs (independent variables such as facility location or staff-resident ratios) and cost (the dependent variable) using multiple regression techniques. Multiple regression makes it possible to evaluate the influence specific variables may have upon cost while at the same time accounting for the possible impact of several other variables.

The dependent variable in this analysis was per diem rate. Twenty-five independent variables were utilized as predictors of cost:

1. Region;
2. Urban/Nonurban Location;
3. Profit-Nonprofit Status;
4. Membership in a System;
5. Total Licensed Capacity of a System;
6. Management Compensation--"top management" compensation as a proportion of total operating expenses;
7. Current Ratio--the ratio defined by dividing a facility's current assets by current liabilities;
8. Facility Size--numbers of residents;
9. Occupancy Rate;
10. Number of Direct Care Staff--full-time equivalents;
11. Staff-Resident Ratio;
12. Transportation Expense--resident-related transportation costs as a proportion of total operating expenses;
13. Interest Expense on Working Capital Loans--as a proportion of total operating expenses;
14. Property and Related Cost--total per diem dollars allowed for property and related expenses;
15. General and Administrative Cost--total per diem dollars allowed for general and administrative expenses;
16. Earnings Allowance Cost--total per diem dollars allowed for earnings allowance or minimum cost of capital;
17. Fixed Cost Ratio--fixed costs such as administrative, property, and earnings allowance as a proportion of total operating expenses;
18. Return on Investment Ratio--the costs calculated by dividing earnings allowance for proprietary facilities by gross investment minus average capital indebtedness;
19. Consultant/Contract Expenses--resident-related consultant contracts and in-service training for staff as a proportion of total operating expenses;
20. Years of Operation;
21. Average Age of Residents;
22. Percentage of Residents Severely or Profoundly Retarded;
23. Percentage of Residents with Behavior Problems;
24. Percentage of Residents Not Toilet Trained;
25. Class A or Class B Licensure.

Three variables from the one-way analysis of variance were omitted because of their high degree of correlation with other variables. The three factors which were omitted from this portion of the study were: licensed capacity (correlated with size) and percentage of residents completely fed or nonambulatory (which were correlated with other resident dependency variables).

Several variables were added to the regression analysis because they are related to cost. While they may not show significance in a one-way analysis of variance, taken together they may help to explain more of the variation in per diem rates.[1] The variables added were management compensation; current ratio; transportation expense; interest expense on working capital loans; property and related cost; general and administrative cost; earnings allowance cost; fixed cost ratio; return on investment ratio; and consultant contract expenses.

The regression analysis indicated that 15 of the 25 variables were statistically significant predictors of per diem cost. Thirteen variables were significant at $p < .01$ level: location; number of direct care staff (full-time equivalent); staff-resident ratio; property and related costs; general and administrative cost; earnings allowance; resident behavior problems; percentage of residents not toilet trained; Class A or Class B licensure; size (inversely related); fixed cost ratio (inversely related); return on investment ratio (inversely related); and years of operation (inversely related). The variables proprietary status and average age of residents (inversely related) were significant at $p < .10$ level. The overall regression equation accounted for 92.2 percent of the variance in per diems.

In a second analysis, facilities were divided into two groups: (1) facilities serving 12 or fewer residents and (2) facilities serving more than 12 residents. A regression analysis was then performed on each of these groups.

The regression equation for facilities serving 12 or fewer clients (N = 167) indicated that 10 of the 25 variables were statistically significant predictors of per diem costs. Seven variables were statistically significant at the $p < .01$ level: location; proprietary status; number of direct care staff (full-time equivalent); property and related costs; general and administrative costs; earnings allowance; and fixed cost ratio (inversely related). One variable was significant at the $p < .05$ level and two variables at the $p < .10$ level. These variables, respectively, were average age of residents (inversely related), occupancy rate, and years of operation (inversely related). This regression equation explained 91.5 percent of the variance in per diems.

In the regression analysis for facilities serving more than 12 residents (ranging from 13 to 171 residents with N = 94), the equation explained 95.2 percent of the variance in per diems. Fourteen of the twenty-five variables were statistically significant. Ten variables were significant at the $p < .01$ level: size (inversely related); direct care staff (full-time equivalent); staff-resident ratio; interest expense on working capital loans (inversely related); property and related costs; general and administrative costs; earnings allowance; fixed cost ratio

---

[1] An example would be higher start-up costs which may indicate more per diem dollars spent for property and related costs as well as a larger fixed cost ratio.

(inversely related); consultant/contract expenses; and years of operation (inversely related). Three variables were statistically significant at the $p < .05$ level: location; percentage of residents not toilet trained; and Class A or Class B licensure. One variable was statistically significant at $p < .10$ level: resident behavior problems.

Table 32 summarizes the significant variables identified by the regression analyses and their relationship with per diem ratio.

Table 32
Summary of Regression Results: Significant Variables

Regression Analysis	Significant Variable	p Level	Relationship to Per Diem
Overall:	Location	.01	positive
	Proprietary Status	.10	positive
$N = 261$	Size	.01	inverse
$R^2 = 92.2$	Direct Care Staff (FTE)[a]	.01	positive
	Staff-Resident Ratio	.01	positive
	Property and Related Costs	.01	positive
	General and Administrative Costs	.01	positive
	Earnings Allowance	.01	positive
	Fixed Cost Ratio	.01	inverse
	Return on Investment Ratio	.01	inverse
	Years of Operation	.01	inverse
	Average Age of Residents	.10	inverse
	Behavior Problems	.01	positive
	Percentage of Residents Not Toilet Trained	.01	positive
	Class A or Class B Licensure	.01	positive
Facilities Serving 12 or Fewer Residents:	Location	.01	positive
	Proprietary Status	.01	positive
	Occupancy Rate	.10	positive
$N = 167$	Direct Care Staff (FTE)	.01	positive
$R^2 = 91.5$	Property and Related Costs	.01	positive
	General and Administrative Costs	.01	positive
	Earnings Allowance	.01	positive
	Fixed Cost Ratio	.01	inverse
	Years of Operation	.10	inverse
	Average Age of Residents	.05	inverse
Facilities Serving 13 or More Residents:	Location	.05	positive
	Size	.01	inverse
	Direct Care Staff (FTE)	.01	positive
$N = 94$	Staff-Resident Ratio	.01	positive
$R^2 = 95.2$	Interest on Working Capital Loans	.01	inverse
	Property and Related Costs	.01	positive
	General and Administrative Costs	.01	positive
	Earnings Allowance	.01	positive
	Fixed Cost Ratio	.01	inverse
	Consultant/Contract Expenses	.01	positive
	Years of Operation	.01	inverse
	Behavior Problems	.10	positive
	Percentage of Residents Not Toilet Trained	.05	positive
	Class A or Class B Licensure	.05	positive

[a] FTE = Full-Time Equivalent.

VI. SUMMARY OF FINDINGS

The one-way analysis of variance tests revealed the following results when per diem rates were examined according to several facility and resident characteristics:

A. Region

There were significant differences ($p < .01$) in the per diems of ICF-MRs located in Minnesota's 13 economic development regions. The highest average per diem was found in the Minneapolis-St. Paul region ($55.90). The lowest average per diem rates were found in regions Six E ($33.90), One ($39.20), and Seven W ($39.70).

B. Urban/Nonurban Location

According to data provided by the Census Bureau for 1982, there were seven major "urban" areas in Minnesota: Duluth, Moorhead, East Grand Forks, LaCrescent, Rochester, St. Cloud, and Minneapolis-St. Paul. Facilities operating in these areas had an average per diem of $54.30, which was 20 percent higher than the average per diem for nonurban locations of $45.20.

C. Size

As in previous studies in this area, a U-shaped relationship between size and per diem costs was found. There was a significant difference ($p < .01$) in per diems by size categories. The highest average per diems were associated with facilities serving 17 to 32 residents in size ($58.50), 33 to 64 residents in size ($55.80), and fewer than 6 residents ($52.20). The lowest average per diem was found in those facilities serving 65 or more residents in size ($43.10).

The higher costs for facilities between 17 and 64 resident size may be attributed in part to increasing staff requirements and, hence, direct care staff (FTE). The higher costs for facilities serving fewer than 6 residents in size may be in part due to their newer opening and higher start-up costs.

D. Licensed Capacity

Since ICF-MRs typically operate at or near licensed capacity (98 percent occupancy), the results of the one-way analysis of variance were similar to the results when categorized by size (number of residents). The highest average per diems were found in the 17 to 32 category, 32 to 64 category, and fewer than 6 category. Lower average per diems were associated with categories between 6 and 17 and greater than 65.

E. Occupancy Rate

The one-way analysis of variance did not reveal any significant differences when groups of facilities were compared by occupancy rate, primarily because in Minnesota ICF-MRs operate at similar rates of resident occupancy--98 percent, statewide average.

F. Staff-Resident Ratio

There were significant differences ($p < .01$) when facilities were compared by categories of staff-resident ratios. Facilities with the lowest staff-resident ratio (less than .30) had the lowest average per diem ($34.26). As staff-resident ratios increased, average per diems increased. The highest average per diem ($74.94) was associated with facilities having a staff-resident ratio greater than .99.

G. Proprietary Status

The analyses did not reveal any significant differences between facilities when compared by profit/nonprofit status. The mean average per diem for nonprofit facilities ($49.90) was slightly higher than for profit facilities ($49.10).

H. Membership in a System

No significant differences were found when comparing per diem rates of facilities which were members of a system and those that were not at the $p < .01$ level. However, at the $.01 < p < .05$ level, facilities which were members of a system were statistically different than those facilities which were not. Facilities which were system members had an average per diem of $50.60. The average per diem for nonsystem facilities was $45.70. Over 72 percent of all facilities were members of a system. The number of beds within an individual system ranged from 12 to 506.

I. Class A/Class B Licensure

The results of one-way analysis of variance indicated statistically significant differences ($p < .01$) for Class A versus Class B facilities. Class B facilities had an average per diem of $67.20, nearly 44 percent higher than the Class A facilities' average of $46.80. Further analysis indicated that this difference may be due in part to client characteristics, staffing patterns, and regulations regarding building structure.

J. Years of Operation

The one-way analysis of variance indicated statistically significant differences ($p < .01$) for facility per diem rates by years of operation. The relationship between per diem rates and years of operation was inverse. The highest average per diem was associated with those facilities opened recently (less than 1.0 year) at $53.50 and fairly recently (1.0 to 3.0 years ago) at $55.00. The lowest average per diem was found in facilities operating for more than 8 years at $40.70.

K. Age of Residents

Statistically significant differences ($p < .01$) occurred when facilities were compared by the average age of the residents served. An inverse relationship was present between average age of residents and per diem rates. The highest average per diems ($72.60) were associated with those facilities serving residents less than 16 years of age. The lowest average per diem ($42.60) was found at those facilities serving residents who averaged 45 years of age or older.

L. Proportion of Residents Severely or Profoundly Mentally Retarded

The one-way analysis of variance indicated statistically significant differences ($p < .01$) when facility per diems were compared according to the proportion of residents classified as severely or profoundly mentally retarded. The highest average per diem ($57.40) was reported by those facilities (N = 45) serving more than 75 percent residents who were severely or profoundly retarded. Facilities which had 6 to 9 percent of their residents with severe or profound mental retardation had the lowest average per diem ($44.10).

M. Resident Dependency Levels

The majority of facilities did not serve clients who were not toilet trained, who have to be completely fed, or who were nonambulatory. The residents who had these characteristics were served primarily in Class B facilities which, as noted earlier, had higher staffing patterns and larger sized facilities. The differences in average per diem rates of facilities compared by these variables were statistically significant ($p < .01$).

Mean per diem rates by proportion of residents not toilet trained ranged from $47.10 (2 percent or less) to $79.80 (more than 26 percent). By proportion of residents who are completely fed, the range was from $47.50 (5 percent or less) to $92.90 (more than 39 percent). The highest mean per diem rate according to proportion of nonambulatory residents was $87.70 (more than 39 percent) and the lowest mean per diem was $47.10 (9 percent or less). For facilities serving residents with severe behavior problems, the highest average per diem ($59.40) was for those facilities with more than 50 percent of their residents with severe behavior problems, and the lowest ($47.00) was for those facilities having 5 percent or less of their residents with severe behavior problems.

N. Multiple Factors

Twenty-five variables were examined using multiple regression techniques to estimate their impact upon ICF-MR per diem rates. Fifteen variables were identified as statistically significant predictors of ICF-MR costs: (1) location; (2) proprietary status; (3) size (inversely related); (4) direct care staff (full-time equivalent); (5) property and related costs; (6) general and administrative costs; (7) earnings allowance; (8) fixed cost ratio (inversely related); (9) return on investment ratio (inversely related); (10) years of operation (inversely related); (11) average age of residents (inversely related); (12) behavior problems; (13) proportion of residents not toilet trained; (14) staff-resident ratio; and (15) Class A or Class B licensure.

A regression analysis using the same 25 variables for facilities with 12 or fewer residents revealed 10 statistically significant cost predictors: (1) location; (2) proprietary status; (3) direct care staff (full-time equivalent); (4) property and related costs; (5) general and administrative costs; (6) earnings allowance; (7) fixed cost ratio (inversely related); (8) years of operation (inversely related); (9) average age of residents (inversely related); and (10) occupancy rate. The regression equation for facilities serving more than 12 residents yielded 14 significant predictors: (1) location; (2) size (inversely related); (3) direct care staff (full-time equivalent); (4) property and related costs; (5) general and administrative costs; (6) earnings allowance; (7) fixed cost ratio (inversely related); (8) years of operation (inversely related); (9) behavior problems; (10) proportion of residents not toilet trained; (11) staff-resident ratio; (12) Class A or Class B licensure; (13) interest on working capital loans; and (14) consultant/contract service.

VII. SUMMARY

The data presented in this study are not definitive but statistical presentations of information derived from ICF-MR cost reports and Health Department records. The data presented are to help define problems, clarify trends, and outline some basic issues regarding community residential care services. Although cost remains a major consideration as both the state and federal governments struggle with substantial budget deficits, it is not the only consideration. Normalization, appropriateness of services, and the movement of developmentally disabled people into less restrictive living environments must also remain high priorities.

A comparison of this study of 1981 ICF-MR data with the study of 1980 data (*Policy Analysis Paper No. 15*) reveals a number of important trends.

In the analysis of variance tests involving individual factors which influence cost, many of the *F* scores increased between 1980 and 1981. This means that the difference between groups was more statistically significant, suggesting that cost differences based on these factors are increasing rather than decreasing. For example, the average per diem for Class B facilities went from 36 percent higher than the Class A average in 1980 to 44 percent higher in 1981. For policy makers, the increasing cost differences between types of ICF-MR facilities may indicate areas that deserve further attention in rate setting procedures.

In the cost function analysis area, the 1981 regression equation explained a higher percentage of the variation in per diems than the 1980 one did. (R^2 increased from 77.4 to 91.5.) This increase was due in part to the inclusion of additional variables. The three statistically significant variables which had the largest impact were property and related costs, general and administrative costs, and earnings allowance; all were positively related to per diem rates. One variable which was not statistically significant in the 1980 analysis was in 1981 (location); one variable (region) was not as significant in 1981 as it had been in 1980. Several variables which were statistically significant in the 1980 analysis also had a statistically significant impact on costs in the 1981 study. For the purposes of cost savings and effective use of resources, both recurring and new variables which have strong influences on costs should be examined in further analyses.

Finally, the reader is urged to refer to *Policy Analysis Paper No. 15* (pages 31 through 34) for a discussion of policy issues related to ICF-MR residential services. The policy issues which were raised in that paper are still relevant; they may be even more important given recent state legislation aimed at changing the funding and structure of programs for developmentally disabled people.

VIII. REFERENCES

Bureau of the Census. 1980 census of population. PC80-1-A25 Minn. Washington, DC: U.S. Government Printing Office, February 1982.

Department of Public Welfare Rule 52 cost reports. Long-Term Care Rate Division, Department of Public Welfare. File years 1980 and 1981.

Developmental Disabilities Program. Policy analysis paper no. 4: Cost function analysis of Minnesota intermediate care facilities for mentally retarded (ICF-MR) per diems. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, September 1981.

Developmental Disabilities Program. Policy analysis paper no. 15: An update to policy analysis paper no. 4: Cost function analysis of Minnesota intermediate care facilities for mentally retarded (ICF-MR) per diems: 1980. St. Paul: Developmental Disabilities Program, Department of Energy, Planning and Development, March 14, 1983.

Division of Health Systems. Directory of licensed and certified health care Facilities. Minneapolis: Division of Health Systems, Department of Health (publications for the years 1975 through 1982).

Laws of Minnesota, 1983, Chapter 312, Article 9.

Medicaid reimbursement rate table (computer listing). Long-Term Care Rate Division, Department of Public Welfare, September 9, 1982.

Minnesota Statutes § 256B.03 (1982). Limit on annual increase to long-term care providers.

Office of the Legislative Auditor, Program Evaluation Division, State of Minnesota. Evaluation of community residential programs for mentally retarded persons. St. Paul: February 11, 1983.

Piasecki, J., Pittinger, J., & Rutman, I. Determining the costs of community residential services for the psychosocially disabled. Washington, DC: National Institute of Mental Health, 1978.

Welsch v. Levine, 4-72 Civil 451 (D. Minn., Sept. 15. 1980).

Wieck, C. A. & Bruininks, R. H. The cost of public and community residential care for mentally retarded people in the United States. Minneapolis: University of Minnesota, Department of Psychoeducational Studies, 1980.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabitities Program, State Planning Agency.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 19: An Update to Policy Analysis Series No. 4 and 15: Cost Function Analysis of Minnesota Intermediate Care Facilities for Mentally Retarded (ICF-MR) Per Diems: 1980* and *1981*. St. Paul, Minnesota: Developmental Disabilities Program, State Planning Agency, August 14, 1983.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 20

RESPITE CARE: A SUPPORTIVE AND PREVENTIVE SERVICE FOR FAMILIES

I. INTRODUCTION

In 1980, the Minnesota Governor's Planning Council on Developmental Disabilities selected alternative community living arrangements as its first priority of activity for its three-year State Plan (1981). The specific objective within this federal priority area was to demonstrate creative alternatives to out-of-home placements by encouraging the development of respite care services throughout the state. Such services were viewed as a means for providing support to families, which could possibly prevent or forestall placement of developmentally disabled persons into more restrictive settings, such as community or state residential facilities.

The term "respite care" has been defined in many different ways with little general agreement. Salisbury and Griggs (1983) offered the following definition of respite care:

> . . . planned or emergency care provided to the disabled individual, in or out of the home, for the purpose of providing relief to the family from the daily responsibilities of caring for a developmentally disabled family member. Such services should be delivered by trained providers and should occur within the context of a coordinated service network. (p. 51)

The mechanism used for developing alternative models of respite care services in Minnesota was through the demonstration grant program that was administered by the Developmental Disabilities Program of the State Planning Agency. Sixteen respite care projects were funded during a three-year period. The summary and analysis of these projects will be presented in *Policy Analysis Paper No. 21*. The primary focus of this paper is to present a review of the literature and to identify available resources which Minnesota might draw upon when planning and implementing future respite care services in this state.

II. REVIEW OF LITERATURE

A. Status of Respite Care Services in Minnesota

In Minnesota, as well as throughout the country,

> The provision of financial incentives and home-based services to assist families with developmentally disabled children is a fairly recent policy development. Support for families has emerged as a response to the spiraling costs of out-of-home placements and to a heightened awareness of the service functions that families perform for their members. (Bates, 1983, p. 1)

In 1980, the Metropolitan Council/Health Board studied the need for respite care services in the seven-county metropolitan area. Families who had substantially handicapped family members (N = 765) were asked about their preference for respite care delivery. While most (70 percent; N = 536) preferred care in the family's own home (p. 1), there was frequent reliance on foster care homes, group homes, or state hospitals for respite care purposes (p. 8). Where respite care was provided in the home setting, such care was usually provided by siblings, untrained sitters, relatives, neighbors, and friends (p. 9).

Although the extent of in-home respite care is not known, out-of-home placements in community and state Intermediate Care Facilities for the Mentally Retarded (ICF-MR) are known. It appears that state residential facilities have provided a large volume of respite care services in Minnesota. A study of the number of people admitted or readmitted to state hospitals between September 1, 1980, and December 31, 1981, revealed that the largest number was for respite care/parent relief purposes (*Policy Analysis Paper No. 5*, 1981; *Policy Analysis Paper No. 10*, 1982). Admission reports indicated that approximately 8 out of 10 admissions from family homes were for respite care/parental relief purposes. Specifically, "more than two-thirds (67.5 percent; N = 102) of the 151 admissions recorded were for respite care/parent relief" (*Policy Analysis Paper No. 10*, 1983, p. 11). Regarding readmissions, "Ninety-two percent (N = 23) of the readmissions from natural homes were for respite care purposes" (*Policy Analysis Paper No. 10*, 1983, p. 4).

The reasons for temporary placements in state hospitals were numerous and varied. "Family emergencies were the most frequently cited reasons for requesting a respite care admission" (*Policy Analysis Paper No. 5*, 1981, p. 11). Other reasons included: "family trips or activities, recent or prolonged hospitalization of a parent, illnesses in the family, and unavailability of community respite care services."

The above studies concluded that, "It is apparent that many families and community care providers rely upon state hospitals for respite care services. The admission reports suggest that had these services been available in the community, many short-term, informal admissions might have been avoided" (*Policy Analysis Paper No. 5*, 1981, p. 13).

For a relatively small number of families, the Minnesota Mental Retardation Family Subsidy Program, begun in 1976, has "greatly enabled families to care for their mentally handicapped child at home" (*Policy Analysis Paper No. 18*, 1983, p. 9). This has been an experimental attempt to provide financial incentives and home-based services to families with handicapped children in their own homes. The intent has been to prevent or forestall out-of-home placement in foster care homes or institutions.

B. The Need for Respite Care

Respite care has been considered to be unique among human services in that "it was intended to benefit the family or caregiver. It has been a service for those who give care, rather than for those who normally receive care" (United Cerebral Palsy Associations, 1981, p. 3). This primary emphasis was implied in its title, "respite" being synonymous with "relief" and its definition, as stated in the introductory section of this report.

Prior to the movement of deinstitutionalization, parents who chose to keep their developmentally disabled children at home "usually did so from choice, and there is considerable evidence to show that these families were expected to cope with the consequences of their choice on their own" (United Cerebral Palsy Associations, 1981, p. 2). Today, however, there has been increased awareness of how families and caregivers coped with the many responsibilities and stresses experienced by them when assuming total care of a person with a developmental disability (Bavolek & Keene, 1980; Wikler & Hanusa, 1980; Moore et al., 1982; and McCubbin et al., 1981). These studies and several others emphasized the need for addressing and providing social and economic supports to families. To prevent social isolation, which frequently occurred, there was a need to expand and strengthen social support networks, such as relatives, neighbors, and friends (Moore, 1982), and to encourage interaction between parents facing similar circumstances (Rueveni, 1979; Porter & Coleman, 1978). Failure to recognize and deal with stress could result in parent (caregiver) "burnout" (Shaw et al., 1981), increased occurrence of child abuse (Newberger, 1982), and other types of family problems, from school failure of nondisabled siblings to marital disharmony and divorce.

Respite care, as a relatively new service, has been proven "effective in reducing stress experienced by these families" (Wikler & Hanusa, 1980, p. 4). Probably no one stated the importance of and need for respite care better than Moore and Seashore (1977):

> Respite care cannot be considered a luxury; it is a necessity if families are to stay together and function well together. Parents deserve relief from their daily responsibilities; their handicapped children must learn to know and trust people outside their immediate families. The long range effects of this vital supportive service can only produce happier, freer, and less anxiety-ridden people. (p. 2)

Lash (1983b) went a step further by stating, "Respite care services, therefore, are not only a supportive service to families, but must be viewed as a preventive service as well" (p. 21).

C. Respite Care as an Essential Component within an Array of Family Support Services

Loop and Hitzing (1980) noted that, ". . . services focusing on supporting the family and the disabled child in the natural home have finished last when compared to other thrusts of deinstitutionalization" (p. 20). Lash (1983b) observed,

> Too often, but understandably, when there are limited funds for limited services, agencies tend to focus exclusively on the needs of the developmentally disabled individual rather than looking at the entire family system. If the service system is committed to maintaining the home and family environment for a developmentally disabled person as the norm, then the first response of an agency must be, "How can we keep your family intact?" (p. 19)

Several parent support services were identified in the *CAIR* report (*Community Alternatives and Institutional Reform*) in 1975, which outlined an array of services for future development in Minnesota:

- Crises assistance;
- Family planning;
- Genetic counseling;
- Homemaker services;
- Medical support;
- Parent education programs;
- Respite care (short term):
    - Weekend and vacation relief,
    - Crises relief;
- Sibling counseling;
- Special funding:
    - Home care,
    - Transportation,
    - Special diets,
    - Babysitting and day nurseries. (p. 25)

Another and more recent version of the array of family support services was provided by Loop and Hitzing (1980) regarding services in Omaha, Nebraska, which is graphically illustrated in Figure 1.

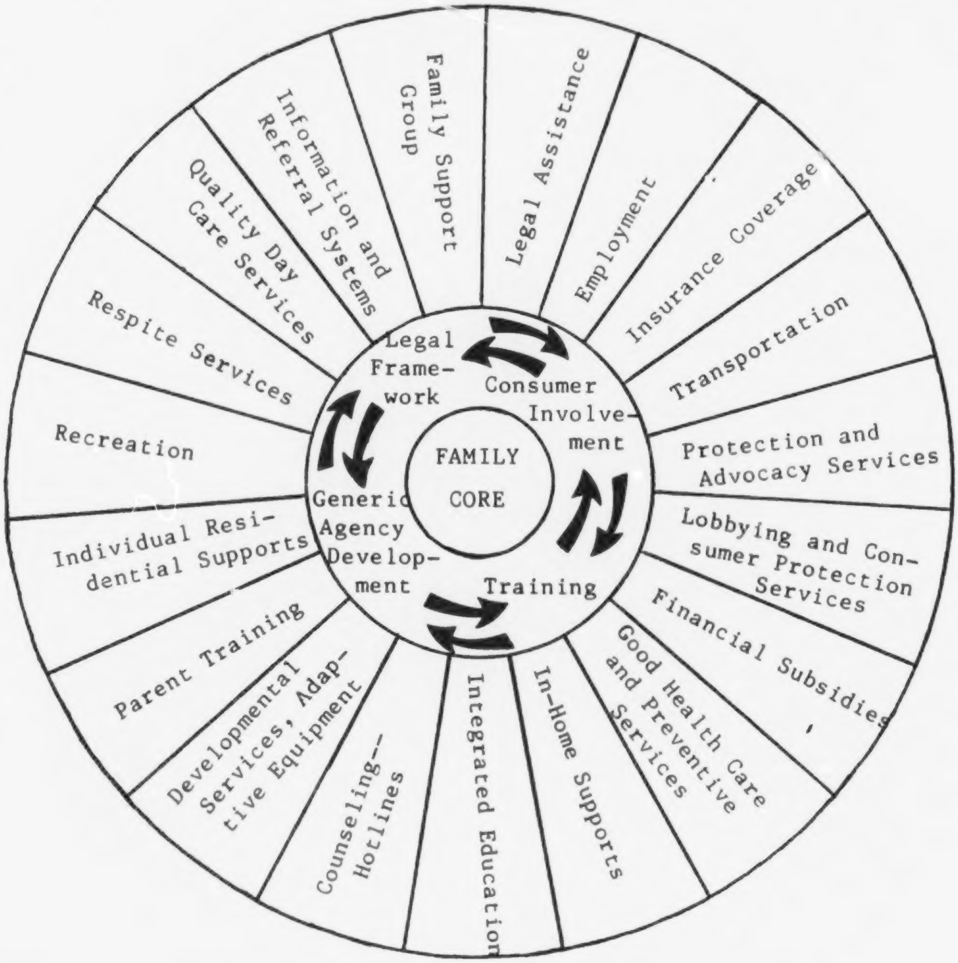

FAMILY CORE
Legal Frame-work
Consumer Involve-ment
Training
Generic Agency Develop-ment
Family Support Group
Legal Assistance
Employment
Insurance Coverage
Transportation
Protection and Advocacy Services
Lobbying and Con-sumer Protection Services
Financial Subsidies
Good Health Care and Preventive Services
In-Home Supports
Integrated Education
Counseling--Hotlines
Developmental Services, Adap-tive Equipment
Parent Training
Individual Resi-dential Supports
Recreation
Respite Services
Quality Day Care Services
Information and Referral Systems

Figure 1: Model Array of Family Resource Systems and Support Services for Handicapped Children and Their Families

"The existence and characteristics of a support system are critical in determining whether or not the developmentally disabled individual is integrated into the community" (Lash, 1983b, p. 19). "For integration to occur, there must be an array of community services appropriate to the individual's *and family's needs (emphasis added)*. These services must be:

- Integrated into the mainstream of the community;
- Provided in-home as well as out-of-home;
- Planned as well as crisis-oriented;
- Part of a comprehensive community service network;
- Short-term as well as long-term;
- Individualized and responsive to the changing needs and resources of the family or family needs." (Loop & Hitzing, 1980, p. 21)

The relationship between respite care and other family support services was further stressed by Wikler (1982) at a conference in Minnesota on "Preventing Harm to Children with Disabilities." Wikler noted that parents often have to learn how to use respite care and leisure time. In Madison, Wisconsin, parents have been instructed on how to use leisure time through parent training, and parents have been reinforced by other parents through support groups to take time out for themselves. Wikler cited several studies which revealed that families with a developmentally disabled member tended to be socially isolated. Other studies have correlated the high incidence of child abuse with social isolation.

"There is no best form of respite care," observed Cohen (1982, p. 8). As early as 1971, Paige described the following locations and types of respite care arrangements (pp. 1-4):

SERVICES IN THE HOME	SERVICES OUTSIDE THE HOME
Homemaker services	Foster home
Nursing services	Temporary-care home
Qualified babysitting	Family-group home
	Group home
	Halfway house
	Specialized nursing service
	State residential facilities.

A more recent description was provided by Upshur (1982b) based on a study of existing programs in Massachusetts where ten different types or models of respite care were identified (see Table 1). Information and referral services were also needed "in order to promote the availability of respite care services" (Upshur, 1982b, p. 6).

Table 1
Models of Respite Care Currently in Use (Massachusetts)

Respite Placement Agencies:
Agencies recruit and train community providers (similar to foster parent recruitment) and match client requests with providers. Care is provided in client's home or provider's home for a few hours up to two weeks overnight.

Group Day Care:
Respite care is provided in the form of group daytime care where children are brought to a facility to relieve families of constant care.

Community Residences:
Some residences for mentally retarded adolescents and adults reserve one or two beds for overnight respite, or will take clients in an emergency.

Group Care or Residential Treatment Facility:
Programs primarily set up as long or short-term treatment facilities reserve one or two beds for overnight respite. Some provide all beds for respite when the regregular treatment program closes for vacations, etc.

Group Respite Provider:
These are group residential programs operated solely as respite care, separate from other types of longer term treatment services.

Pediatric Nursing Homes/Hospitals:
These primarily serve as long term nursing care facilities or acute hospitals, but will also provide overnight respite in an emergency for children with medical needs.

Private Respite Provider:
This model involves nurses and others who provide overnight care for 1 to 4 children in their own homes, but are not affiliated with any agency.

State Institutions:
Some state institutions provide overnight care to older children and adults when no other alternative exists. Most prefer to serve only former in-patients.

Funding Conduit:
This model allows families to select their own caregiver for daytime or overnight services in their own home or that of the caregiver. The agency merely reimburses the family (within agreed limites) for the costs incurred in obtaining respite care.

Camperships:
This model allows daytime or overnight camp experience to be considered respite care. In some cases, parents select the camp; in others the agency does.

Great care must be given to the taxonomy and design of family support services and to the definition of respite care services. When defining respite care, the National Respite Care Advisory Committee of the United Cerebral Palsy Associations noted that, "It should be recognized that many other services provide relief but it is not their primary function" (1981, p. 3). Ross added these words of caution:

> Public policy makers design programs and establish arbitrary boundaries around them in order to have workable funding guidelines and parameters and insure (*sic*) accountability, integrity, and control. This fact of public financing implies that respite care should be narrowly defined so it is understandable and operational. To define respite care as all services required by families not currently being offered, ignores the potential and mandates of existing programs, creates confusion regarding its mission, and implies uncontrollable budgetary implications. (1980, p. 20)

D. Review of Respite Care Programs in Other States

This section will highlight respite care programs that have been developed in two selected states: Massachusetts and Wisconsin. Products and experiences of additional states may be noted in the above text and in the list of references. Although literature and research is relatively underdeveloped regarding respite care, there are several training curricula and other resources that may prove helpful. A listing of such resources are presented in the Appendix.

Massachusetts

Massachusetts was among the earliest developers of respite care services in the country (Upshur, 1978). In 1977, the Massachusetts Developmental Disabilities Council recognized the need for "a comprehensive, integrated approach to the provision of respite care services" and created The Respite Care Policy Development Project with an advisory committee consisting of six state agencies, providers, and consumer groups (p. 1). The results of this project and subsequent grant projects through Developmental Disabilities led to several accomplishments in developing respite care services in Massachusetts.

A Respite Care Interagency Policy Committee was established to coordinate efforts and facilitate communication between the major funding agencies: the Department of Mental Health, the Department of Social Services, and the Department of Public Health (Massachusetts Developmental Disabilities Council, 1982, p. 1). Each agency has defined respite care, established regulations or service standards guided by the recommendations made by The Respite Care Policy Development Project and The Respite Care Interagency Policy Committee. Program standards have been enforced by way of funding mechanisms rather than licensure (Upshur, 1978, p. 58; Upshur, 1982,

p. 2). Providers of respite care services were reimbursed for services rendered through "Purchase of Service Agreements" with a state agency (Massachusetts Department of Social Services, 1983a, p. 1). Unit rates for services were negotiated by each state department through the Massachusetts Rate Setting Commission procedures. Each state department has monitored the performance of respite care providers from whom services were purchased in order to assure compliance with Purchase Agreement terms, state and federal regulations, service standards, and licensing requirements. Monitoring activities have included desk reviews, desk audits, and site visits. The latter has included consumer billing verification, compliance monitoring, and interviews with the respite care provider (p. 2).

The Massachusetts Department of Mental Health established a set of regulations regarding four service models that had been classified and defined by the Respite Care Policy Development Project (Upshur, 1978, pp. 56-58):

- Group Respite Providers: Group homes set up solely for providing short-term placements;

  Licensed Providers: Programs/facilities that were already licensed for other purposes, e.g., day care centers, family day care homes, group care facilities, temporary shelter facilities, and nursing homes;

  Community Respite Providers: Persons who were recruited by respite placement agencies and provided respite care in their own homes or in the homes of clients; and

  Respite Placement Agencies: Programs that recruited, trained, monitored community providers, and placed clients with community providers. (Massachusetts Department of Mental Health, Chapter 400, pp. 11-12)

The above classifications assisted the state agencies in establishing standards for respite care service providers who were not licensed and provided "add on" regulations for already licensed programs (Upshur, 1978, p. 59).

Between the three major funding agencies in Massachusetts, a considerable amount of public funds have been allocated for purchase of respite care services. The following allocations were made for fiscal year 1983 (United Community Planning Corporation, 1982c, p. 1).

DEPARTMENT	ALLOCATION
Mental Health	$5,504,124
Public Health	241,800
Social Services	1,000,000
TOTAL	$6,745,924

In fiscal year 1982, there were approximately 15,500 people who received respite care services through these three state agencies in Massachusetts (p. 2).

Wisconsin

Wisconsin demonstrated the generic nature of respite care services. In addition to the population with developmental disabilities, respite care demonstration projects were designed to serve persons with mental illness, physical disabilities, elderly persons, and children. The latter included children who were not necessarily physically, emotionally, or developmentally disabled but were in stressful family environments where there was a risk of abuse or neglect (Wisconsin Department of Health and Social Services, 1981, p. 1).

Cretney (1983) stressed the importance of how a state defines respite care at the onset of designing and planning for respite care services. "Most policy decisions and discussion seem to revert back to how respite care is defined in the first place," Cretney commented. In Wisconsin, respite care was broadly defined as:

> . . . the temporary or periodic provision of a range of services which helps prevent individual and family breakdown or institutionalization by relieving the usual (primary) caregiver of stress resulting from giving continuous support and care to a dependent individual. (Wisconsin Department of Health and Social Services, p. 1)

In 1980 and 1981, ten demonstration projects were state-funded by the Wisconsin Division of Community Services. The use of respite care as a family service to relieve stress was the basic goal of all the projects regardless of the nature of the dependency.

During the two years of demonstrating respite care services in Wisconsin, 458 families were served (p. 4). Developmentally disabled individuals and elderly persons were the two major groups using respite services (see Table 2). Care in the individual's own home was the setting by choice in 80 percent of the cases. The only exception to the trend of care in the individual's home was for children at risk of abuse and neglect who received care in the respite workers' homes. Other sites of care available were foster families, group homes, or institutional services.

Table 2
Wisconsin: Target Population
for Respite Care for CY 1980-1981

TYPE OF INDIVIDUALS USING RESPITE SERVICES	NUMBER OF INDIVIDUALS SERVED CY 1980	CY 1981
Children at risk of abuse or neglect	107	62
Developmentally disabled persons	187	236
Elderly persons	197	191
Mentally ill persons	11	16
Physically disabled persons	47	43
TOTAL	549	548

Wisconsin attempted to identify the factors that either facilitated or hindered the provision of respite services. Community awareness and understanding of the respite care program had a definite impact on the appropriateness and timeliness of referrals. As families and agencies better understood the service, families were better able to plan for service requests, which, in turn, facilitated better scheduling and assignment of respite care workers. Interagency coordination for planning as well as implementation was critical both in reducing costs and duplication of efforts as well as meeting families' needs more effectively (p. 17).

E. Financing Respite Care Services

There have not been enough respite care services available because of "an absence of a stable funding base" (Cohen, 1982, p. 10). Temporary funding, mostly for demonstration purposes, has been provided by Developmental Disabilities such as in Wisconsin, Maryland, Massachusetts, and Missouri. Long-range funding has been difficult to obtain and has been fraught with restrictions due to income tests and other eligibility requirements.

In a review of possible federal funding sources for respite care programs, Ross (1980) concluded that utilization of generic funding programs (i.e., funding programs not limited to those with disabilities) seemed to be the key to financing respite care (p. 21). Federal programs seen as accessible were Title XIX Medicaid, Title XVIII Medicare, Crippled Children's Services, Maternal and Child Health Services, SSI Disabled Children's Program, Title IV(B) Child Welfare Services, and Title XX Social Services. "The long-range solution . . . is to liberalize the generic funding programs so that respite and related family support services may be financed" (p. 21).

Additional federal programs explored by Ross in 1980 were: Title XX Training, ACTION volunteer programs (VISTA and Foster Grandparent Program), Title III of the Older Americans Act, and The Cooperative Extension Service of the United States Department of Agriculture.

Cohen (1982) noted that, "Clearly, a highly desirable addition to these systems (federal programs) would be legislation aimed at providing support for a variety of community-based, noninstitutional services, including respite care" (p. 10). In part, such a program was created when the U.S. Congress passed The Omnibus Budget Reconciliation Act of 1981. Under Section 2176, states were provided the opportunity to apply for a waiver of certain Medicaid statutory limitations in order to allow the states to develop home and community-based services for eligible persons who would otherwise require placement into Intermediate Care Facilities and other costly long-term care facilities. Many states have applied and been approved under this waiver (Intergovernmental Health Policy Project, 1983).

In the 1983 legislative session in Minnesota, authorization was given to the Department of Public Welfare (MINN. STAT. Chapter 312) to apply for such a waiver. Waivered services at a minimum, included "case management, family training and support, developmental training homes, supervised living arrangements, semi-independent living services, *respite care*, and training and habilitation services" (*emphasis added*). State Representative Ann Wynia, St. Paul, a chief advocate behind the bill, commented on what she hoped would be accomplished through this enabling legislation: "I hope that this is going to give us a more rational system of services, a system that will reflect individual needs as well as sensitivity to the cost of services" (*Information Exchange--State Supplement*, July 1983, p. 1).

III. DISCUSSION

A review of literature about respite care services revealed that it is a supportive as well as a preventive service for families. Aimed at providing relief to the primary caregivers, or parents, respite care services may not only help in reducing stress that often accompanies the responsibilities of caring for a severely disabled/dependent family member, but it may also prevent or forestall permanent out-of-home placement that would be more costly and more restrictive of individual freedoms.

Because respite care services have not been available in most communities in Minnesota, there has been an overreliance on the use of state hospital facilities by families seeking temporary relief from or care for their disabled family members. In view of the spiraling costs of out-of-home placements and a heightened awareness of the service functions that families perform for their members, human service planners and policy makers must address the question, "How can we help to keep families intact?"

An array of family support services must be conceptualized and implemented among which respite care should be an integral part. Through support groups and specialized training, parents must not only learn the value of using leisure time for themselves, but they must recognize the danger signals and effects of stress in their daily lives. Besides the provision of temporary relief, qualified respite care providers could also help to imrpove and/or reinforce parenting and homemaking skills.

If respite care services are to become an established social service in Minnesota, several key elements must be addressed, of which a few include: (a) arriving at a consensus on a definition of respite care; (b) the establishment of a sound funding base; (c) the possibility of providing respite care as a generic service that would broaden the scope of clientele to be served and the consolidation of categorical funds; (d) the provision of training of respite care service developers/providers and parents; and e) the involvement of parents throughout the planning and implementation phases of creating a coordinated network of support services to families.

A continuation of this discussion is contained in *Policy Analysis Paper No. 21*, entitled *Summary and Analysis of Minnesota Developmental Disabilities Respite Care Demonstration Projects (Federal Fiscal Years 1981-1983)*.

IV. REFERENCES

Bates, M. V. State family support/cash subsidy programs. Madison: Wisconsin Council on Developmental Disabilities, 1983.

Bavolek, S. J. & Keene, R. Primary prevention of child abuse: The identification of high risk parents. Eau Claire: University of Wisconsin, 1980.

Beckman-Bell, P. Child-related stress in families of handicapped children. Topics in Early Childhood Special Education, 1981, 1(3), 45-53.

Bruininks, R. H. & Krantz, G. C. (Eds.). Family care of developmentally disabled members: Conference proceedings. Minneapolis: University of Minnesota, 1979.

California Institute on Human Services. *Respite services for Californians with special developmental needs*. Rohnert Park: Sonoma State University, 1982.

Center for the Development of Community Alternative Service Systems. *Community-based systems of temporary family supports and integrated respite service systems: A resource bibliography*. Omaha, Nebraska: Author, 1979.

Center for the Development of Community Alternative Service Systems. *Respite services community development project: Project description*. Omaha, Nebraska: Author, 1976.

Cohen, S. Supporting families through respite care. *Rehabilitation Literature*, 1982, *43*(1-2), 7-11.

Cretney, L. Personal communication, May 23, 1983.

Cretney, L. *Respite care and institutionalization*. Madison: Division of Community Services, Wisconsin Department of Health and Social Services, 1982.

Fredericks, M. *A review of respite care services and needs*. Dallas: Association for Retarded Citizens--Dallas, 1980.

Hahn, S. & Pullo, M. L. *Respite care: A family support service*. Madison: United Cerebral Palsy of Wisconsin, 1979.

Hagen, J. *Report on respite care services in Indiana*. South Bend: Northern Indiana Health Systems Agency, Inc., 1980.

Hill, R. B. Thoughts on the history and future of purchase-of-service in Massachusetts. *New England Journal of Human Services*, Winter 1983, 36-49.

Intergovernmental Health Policy Project. Medicaid waivers. *State Health Notes*, July 1983.

Judd, E. & Crouch, P. *Early intervention for families: Respite, training and integration (CAIR); Interim report*. Denver: Colorado Department of Institutions, 1975.

Kennedy, M. *Giving families a break: Strategies for respite care*. Omaha: University of Nebraska Medical Center, 1982.

Kline, D. F. *The disabled child and child abuse*. Chicago: National Committee for Prevention of Child Abuse, 1982.

Lash, M. Personal communication, August 4, 1983. (a)

Lash, M. *Respite care: The development of a preventive support service for families under stress*. Boston: Massachusetts Department of Social Services, May 1983. (b)

Loop, B. & Hitzing, W. *Family resource service and support systems for families with handicapped children*. Omaha: Meyer Children's Rehabilitation Institute, 1980.

Massachusetts Department of Mental Health. Title 104 CMR, Chapter 400.000, Section 400.001. *Respite Care Program Regulations*. Boston: Author, undated.

Massachusetts Department of Social Services. *Program description package: respite care, fiscal year 1984*. Boston: Author, June 1983. (a)

Massachusetts Department of Social Services. *Provider reference manual: respite care, fiscal year 1984*. Boston: Author, 1983. (b)

Massachusetts Department of Social Services. *Respite care program for the developmentally disabled: An overview*. Boston: Author, June 1962.

Massachusetts Department of Social Services. *Standards for the provision of respite care services*. Boston: Author, June 1983. (c)

Massachusetts Developmental Disabilities Council. The future of respite care in Massachusetts: Proceedings of the respite care conference--October 5, 1982. *MDDC Newsletter*, December 1982.

Massachusetts Developmental Disabilities Council. *Respite care studied in Massachusetts*. Boston: Author, 1978.

McCubbin, H. I., Nevin, R. S., Larson, A., Comeau, J., Patterson, J., Cauble, A., & Striker, K. *Families coping with cerebral palsy*. St. Paul: Department of Family Social Science, University of Minnesota, 1981.

McCubbin, H. I. & Patterson, J. M. *Systematic assessment of family stress, resources and coping: Tools for research, education, and clinical intervention*. St. Paul: Department of Family Social Science, University of Minnesota, 1981.

Metropolitan Council/Metropolitan Health Board. *Respite care for handicapped people in the Twin Cities area: A report of the seven-county ad hoc committee on respite care*. St. Paul: Author, 1980.

Metropolitan Council/Metropolitan Health Board. *What families with handicapped members living at home are saying about respite care: Comments extracted from metropolitan respite care survey--1980*. St. Paul: Author, January 1981.

Minnesota Developmental Disabilities Program. *CAIR: Community alternatives and institutional reform: Planning alternatives for the developmentally disabled individual*. St. Paul: Minnesota State Planning Agency, January 1975.

Minnesota Developmental Disabilities Program. Legislature allows changes in services for retarded persons. *Information Exchange--State Supplement*, July 1983, pp. 1-4.

Minnesota Developmental Disabilities Program. *Policy analysis paper no. 5: Admissions/readmissions to state hospitals September 1, 1980 to May 31, 1981: The behavior problem issue*. St. Paul: Department of Energy, Planning and Development, August 1981.

Minnesota Developmental Disabilities Program. *Policy analysis paper no. 10: An update to policy analysis series no. 5: Admissions/readmissions to state hospitals June 1, 1981 to December 31, 1981: The behavior problem issue*. St. Paul: Department of Energy, Planning and Development, April 1982.

Minnesota Developmental Disabilities Program. *Policy analysis paper no. 18: The Minnesota family subsidy program: Its effect on families with a developmentally disabled child*. St. Paul: Department of Energy, Planning and Development, May 1983.

Minnesota Governor's Planning Council on Developmental Disabilities. *Developmental disabilities state plan*--1981. St. Paul: Minnesota State Planning Agency, 1981.

Moore, C. *A coalition approach to respite care*. Silver Spring, Maryland: Montgomery County Association for Retarded Citizens, 1977.

Moore, C. & Seashore, C. N. *Why do families need respite care? Building a support system*. Silver Spring, Maryland: Montgomery County Association for Retarded Citizens, 1977.

Moore, J. A., Hamerlynck, L. A., Bartsh, E., Spieker, S., & Jones, R. *Extending family resources*. Seattle: Children's Clinic and Preschool, December 1982.

National Association of State Mental Retardation Program Directors. *The minimal array of essential services for mentally retarded persons: An analysis of consumer and provider opinions*. Alexandria, Virginia: Author, 1979.

Newberger, E. *Understanding the dimensions of abuse and neglect in 1982*. Paper presented at a conference: "Preventing Harm to Children with Disabilities," Coon Rapids, Minnesota, May 21, 1982.

Paige, M. *Respite care for the retarded: An interval of relief for families*. Washington, DC: U.S. Department of Health, Education and Welfare, 1971.

Perske, M. & Perske, R. Hope for the families: New directions for parents of persons with retardation or other disabilities. Nashville: Abingdon, 1981.

Porter, F. & Coleman, R. Pilot parent program: A design for developing a program for parents of handicapped children. Omaha: Greater Omaha Association for Retarded Citizens, 1978.

Ross, E. C. Financing respite care services: An initial exploration. Word from Washington (Analysis). Washington, DC: United Cerebral Palsy Associations, Inc., February 1980.

Rueveni, U. Networking families in crises: Intervention strategies with families and social networks. New York: Human Sciences Press, 1979.

Salisbury, C. & Griggs, P. A. Developing respite care services for families of handicapped persons. The Journal of the Association for the Severely Handicapped, Spring 1983, 8, 50-57.

Shaw, S. F., Bensky, J. M., & Dixon, B. Stress and burnout: A primer for special education and special services personnel. Reston, Virginia: Council for Exceptional Children, 1981.

United Cerebral Palsy Associations. For this respite, much thanks . . . concepts, guidelines and issues in the development of community respite care services. New York: Author, 1981.

United Community Planning Corporation. Basic principles of respite care for developmentally disabled persons. Boston: Author, 1982. (a)

United Community Planning Corporation. Providing respite care: A training program for respite care providers and home health aids. Boston: Author, 1982. (b)

United Community Planning Corporation. Respite care dollars. Boston: Author, 1982. (c)

Upshur, C. C. An evaluation of home-based respite care. Mental Retardation, April 1982, 20(2), 58-62. (a)

Upshur, C. C. Respite care for mentally retarded and other disabled populations: Program models and family needs. Mental Retardation, February 1982, 20(1), 2-6. (b)

Upshur, C. C. Respite care policy development project: Summary of final report. Boston: Massachusetts Developmental Disabilities Council, 1978.

Upshur, C. C. & Schmic[illegible]el, A. F. Basic principles of respite care for developmentally disabled persons. Boston: Respite Care Interagency Policy Committee, 1982.

Wikler, L. Chronic stresses of families of mentally retarded children. Family Relations, April 1981, 30, 281-288.

Wikler, L. Stress plus stress: Living/working with disabled children. Presentation at "Preventing Harm to Children with Disabilities Conference," Coon Rapids, Minnesota, May 21, 1982.

Wikler, L. & Hanusa, D. Impact of respite care on stress in families of developmentally disabled people. Paper presented at the American Association of Mental Deficiency Annual Conference, San Francisco, May 13, 1980.

Wikler, L., Wasow, M., & Hatfield, E. Chronic sorrow revisited: Parent vs. professional depiction of the adjustment of parents of mentally retarded children. American Journal of Orthopsychiatry, 1981, 51, 63-70.

Wisconsin Department of Health and Social Services. Respite care projects: 1980 final report. Madison: The Bureau of Aging, 1981.

APPENDIX: RESPITE CARE TRAINING RESOURCES

*Arizona Department of Economic Security. Family support services: Respite sitter, in-home program handbook. Phoenix: Division of Developmental Disabilities, 1979.

*Andress, J. J., Jolliffe, N., McNees, M., Meier, H., & Warner, D. Manual of the parent respite care cooperative. Kalamazoo, Michigan: Association for Retarded Citizens, Kalamazoo, 1977.

*Association for Retarded Citizens--San Diego. Sitter service for the handicapped: Respite worker training manual. San Diego: Author, 1982.

Balthazar, E. E. Training the retarded at home or in school: A manual for parents, home trainers, teachers and others. Palo Alto: Consulting Psychologists Press, 1976.

*Calhoun, M. L. & Duncan, T. M. The helping hand of respite care . . . A training manual for providers of respite care. Columbia, South Carolina: Respite Care Project, Circa 1982.

*Kenney, M. Giving families a break: Strategies for respite care. Omaha: Meyer Children's Rehabilitation Institute, University of Nebraska Medical Center, 1982.

Kenney, M. Handbook for home-based services. Des Moines: Iowa Civil Rights Commission, Protection and Advocacy Division, 1979.

*Meyer's Children's Rehabilitation Institute. Respite care fact packet. Omaha: University of Nebraska Medical Center, 1982.

*National Council for Homemaker-Home Health Aide Services. Working with the developmentally disabled person and family: A manual for instruction of the homemaker--Home health aide. New York: Author, 1979.

National HomeCaring Council. A better answer . . . Homemaker-home health aide services for the person with developmental disabilities and family series: No. 1, A community guide; No. 2, A manual for instructors; No. 3, A handbook for aides; No. 4, Guidelines. New York: Author, 1983.

*National HomeCaring Council. 1982-83 Publications and audiovisual aids list. New York: Author, 1982.

National HomeCaring Council. Someone I can trust. New York: Author, 1981.

---

*These resources may be borrowed from the Minnesota Developmental Disabilities Program, State Planning Agency, 550 Cedar Street, St. Paul, Minnesota 55101.

*National Institute on Mental Retardation. Residential services: Community housing options for handicapped people. Downsview, Ontario: Author, 1978.

*Nisonger Center for Mental Retardation and Developmental Disabilities. Operating manual for residential service personnel. Columbus, Ohio: Author, 1974.

*Perske, R., Clifton, A., McLean, B., & Stein, J. Mealtimes for severely and profoundly handicapped persons. Baltimore: University Park Press, 1978.

Powell, T. H. & Hecimovic, A. Respite care for the handicapped: Helping individuals and their families. Springfield, Illinois: Charles C. Thomas Publishers, 1981.

*Pullo, M. & Hahn, S. Respite care: A family support service. Madison: United Cerebral Palsy of Wisconsin, 1979.

*Respite Care Program, Inc. Respite care training manual. Crookston, Minnesota: Author, 1983.

*Shoob, Deanne. A community respite care program for mentally retarded and/or physically handicapped. Springfield, Virginia: Child Care Assistance Program for Special Children, Inc., November 1976.

South Carolina Department of Social Services. Love in the world--A manual for foster parents. Columbia: Author, undated.

*United Cerebral Palsy Associations. For this respite, much thanks . . . Concepts, guidelines and issues in the development of community respite care services. New York: Author, 1981

United Community Planning Corporation. Providing respite care: A training program for respite care providers and home health aids (handbook for trainers, core curriculum; and specialized modules in severe behavior problems; recreation and leisure; and stress and burnout). Boston: Author, 1982.

*Wehman, P. & Schleien, S. Leisure programs for handicapped persons: Adaptations, techniques and curriculum. Baltimore: University Park Press, 1981.

---

*These resources may be borrowed from the Minnesota Developmental Disabilities Program, State Planning Agency, 550 Cedar Street, St. Paul, Minnesota 55101.

POLICY ANALYSIS SERIES

ISSUES RELATED TO WELSCH v. LEVINE / NO. 21

SUMMARY AND ANALYSIS OF MINNESOTA DEVELOPMENTAL DISABILITIES RESPITE CARE DEMONSTRATION PROJECTS
(Federal Fiscal Years 1981-1983)

Contents

		Page
I.	Introduction	1
II.	Review of Literature	2
III.	Methodology	2
IV.	Results	2
V.	Discussion	13
VI.	References	14
Appendix A		16
Appendix B		51

I. INTRODUCTION

This paper is a continuation and conclusion of the discussion about respite care services that was initiated in *Policy Analysis Paper No. 20: Respite Care: A Supportive and Preventive Service for Families*. The primary purpose of this paper is to present a summary and analysis of the respite care demonstration projects that were funded by the Minnesota Governor's Planning Council on Developmental Disabilities over a three-year duration (federal fiscal years 1981 through 1983--October 1, 1981, through September 30, 1983).

In 1980, the Minnesota Governor's Planning Council on Developmental Disabilities selected alternative community living arrangements as its first priority of activity for its three-year State Plan (1981). The specific objective within this federal priority area was to demonstrate creative alternatives to out-of-home placements by encouraging the development of respite care services throughout the state. Such services were viewed as a means for providing support to families, which could possibly prevent or forestall placement of developmentally disabled persons into more restrictive settings, such as community or state residential facilities.

The term "respite care" has been defined in many different ways with little general agreement. Salisbury and Griggs (1983) offered the following definition of respite care:

> . . . planned or emergency care provided to the disabled individual, in or out of the home, for the purpose of providing relief to the family from the daily responsibilities of caring for a developmentally disabled family member. Such services should be delivered by trained providers and should occur within the context of a coordinated service network. (p. 51)

The mechanism used for developing alternative models of respite care services in Minnesota was through the demonstration grant program that was administered by the Developmental Disabilities Program of the State Planning Agency. Sixteen respite care projects were funded during a three-year period. Nine projects were funded for two years, and four projects were funded for each of the three years. Among the latter (of the three-year projects), one project was administratively transferred to another agency (In-Home Respite Care for Autistic Persons) but is counted as a single project in this report. Details about each project are included in Appendix A. The summary and analysis of projects funded in fiscal year (FY) 1983 covers only the first nine months (October 1, 1982, through June 30, 1983).

II. REVIEW OF LITERATURE

Policy Analysis Paper No. 20 presented both a review of literature and discussion of other resources developed throughout the United States on respite care. The reader is referred to that paper for a discussion of respite care literature.

III. METHODOLOGY

One of the primary purposes of this paper is to provide a summary description of the respite care projects that were demonstrated over a three-year duration in Minnesota. The following sources of information were used: (1) the initial project proposals; (2) quarterly and final reports; (3) correspondence; (4) summaries of site visits; and (5) telephone discussions with project directors to clarify information or to collect missing data. The information was collected and categorized into a common format which is presented in Appendix A.

IV. RESULTS

The results section will be presented in the following order: (1) funding of respite care demonstration projects; (2) number and ages of people served; (3) number of respite care providers trained and/or employed; (4) variety of respite care options demonstrated; and (5) geographic distribution of respite care projects.

A. Funding of Respite Care Demonstration Projects

A total of $1,001,074 was allocated over a three-year period for the purpose of demonstrating respite care services in Minnesota. Of that amount, $638,033 (64 percent) was provided by federal Developmental Disabilities dollars, and $363,041 (36 percent) was provided as local cash and/or in-kind matching contributions provided by the grantees (see Table 1).

Table 1
Total Grant Awards for Respite Care Projects
(Fiscal Years 1981 through 1983)

Fiscal Year[a]	Developmental Disabilities Grant Amounts	Local Match (Cash and/or In-Kind)	Total
1981	$ 288,827	$215,509	$ 504,336
1982	175,231	86,278	261,509
1983	173,975	61,254	235,229
TOTAL	$ 638,033	$363,041	$1,001,074

[a] Fiscal year (FY) pertains to October 1 through September 30. For example, FY 1981 began October 1, 1980, and ended September 30, 1981.

Specific allocations regarding each project are included in the information presented in Appendix A.

B. Number and Ages of People Served

Over the two years and nine months (October 1, 1980, through June 30, 1983), there was an approximate total of 3,630 people served by the 16 respite care projects. These figures are considered to be approximations due to the likelihood that duplication of counts occurred among the cumulative quarterly and final report figures (see Table 2).

Table 2
Approximate Number of People Served by Respite Care Projects (Direct and Indirect Services)[a]
(Fiscal Years 1981 through 1983)

	TYPE OF SERVICE PROVIDED			
		Indirect Services[c]		
FISCAL YEAR	Direct Services[b]	Special Requests	General Requests	TOTAL PEOPLE SERVED
1981	473[d]	256	326	1,055
1982	248	612	486	1,346
1983[e]	197	645	387	1,229
TOTAL	918	1,513	1,199	3,630

[a] These are considered to be "approximate" figures since counts may be duplicated.

[b] "Direct Services" pertains to respite care services provided directly to clients and their families.

[c] "Indirect Services" consists primarily of information and referral services which were provided by Developmental Services Organization, Inc., St. Paul.

[d] This figure is somewhat skewed. It includes 219 children who participated in a respite camping program.

[e] Fiscal year 1983 includes only three quarters of reporting, i.e., October 1, 1982, through June 30, 1983.

The greatest number served were those who received "indirect" services (in this case, information and referral services) from Developmental Services Organization in St. Paul. A total of 2,712 information and referral requests were handled by that agency during the demonstration period. Over half of these requests (N = 1,513) were "special" requests dealing specifically with respite care and/or residential services. The remainder (N = 1,199) were of a "general" nature. It did not necessarily pertain to respite care.

Approximately 918 people received direct respite care services during the demonstration period. The details on the numbers served by each project are reflected in Tables 3 and 4 and in Appendix A.

The majority of people served were below age 21. This was reflected in both direct and indirect services. In 1982, 81 percent (N = 200) of the 248 individuals receiving direct respite care services, and 71 percent (N = 411) of the 612 individuals receiving indirect services were below age 21. Tables 3 and 4 describe the number and ages of people served by each project in fiscal years 1982 and 1983, respectively. (This information was not collected for fiscal year 1981.)

Table 3
Number of People Served during Fiscal Year 1982 by Age Category: Direct and Indirect Respite Care Services

	AGE CATEGORY			
RESPITE CARE AGENCY	Birth to 3 Years	4 to 20 Years	21 years and Over	TOTAL
Direct Services:[a]				
• Alternatives for Autistic People, Inc.	3	62	8	73
• Association for Retarded Citizens--Duluth	6	15	4	25
• Chisago County Welfare Department	2	4	4	10
• Cook County Social Services	(Not in Operation)			
• Isanti County Family Services	0	0	5	5
• Lakes Homes and Program Development	10	33	23	66
• Olmsted County Department of Social Services	1	15	1	17
• Respite Care Program--Northwest Minnesota	4	8	3	15
• St. David's School for Exceptional Children	28	9	0	37
• Volunteers of America--Bar-None	(Not in Operation)			
TOTAL DIRECT SERVICES	54	146	48	248
— PERCENT	22%	59%	19%	100%
Indirect Services:[b]				
• Developmental Services Organization, Inc.[c]	90	321	201	612
— PERCENT	15%	52%	33%	100%
TOTAL DIRECT AND INDIRECT SERVICES	144	467	249	860
— PERCENT	17%	54%	29%	100%

[a] "Direct Services" pertains to respite care services provided directly to clients and their families.

[b] "Indirect Services" consists primarily of information and referral services provided by Developmental Services Organization (DSO), St. Paul.

[c] These figures reflect only the "special" information and referral requests received by DSO regarding respite care and residential services. In addition, DSO received 486 "general" requests during FY 1982 which were not broken down by ages.

Table 4
Number of People Served during Fiscal Year 1983 by Age Category: Direct and Indirect Respite Care Services[a]

RESPITE CARE AGENCY	AGE CATEGORY Birth to 3 Years	4 to 20 Years	21 years and Over	TOTAL
Direct Services:[b]				
• Alternatives for Autistic People, Inc.	(This service was transferred to Volunteers of America, below)			
• Association for Retarded Citizens--Duluth	4	6	6	16
• Chisago County Welfare Department	2	6	8	16
• Cook County Social Services	0	0	4	4
• Isanti County Family Services	0	0	5	5
• Lakes Homes and Program Development	10	19	14	43
• Olmsted County Department of Social Services	1	25	2	28
• Respite Care Program--Northwest Minnesota	10	7	3	20
• St. David's School for Exceptional Children	20	5	0	25
• Volunteers of America--Bar-None	3	42	4	49
TOTAL DIRECT SERVICES	50	110	46	206
— PERCENT	24%	54%	22%	100%
Indirect Services:[c]				
• Developmental Services Organization, Inc.[d]	88	296	261	645
— PERCENT	14%	46%	40%	100%
TOTAL DIRECT AND INDIRECT SERVICES	138	406	307	851
— PERCENT	16%	48%	36%	100%

[a] Fiscal Year 1983 averages were calculated over a nine-month duration, October 1, 1982, through June 30, 1983.

[b] "Direct Services" pertains to respite care services provided directly to clients and their families.

[c] "Indirect Services" consists primarily of information and referral services provided by Developmental Services Organization (DSO), St. Paul.

[d] These figures reflect only the "special" information and referral requests received by DSO regarding respite care and residential services. In addition, DSO received 387 "general" requests during FY 1983 which were not broken down by ages.

C. Number of Respite Care Providers Trained and/or Employed

Table 5 summarizes the number of people who were trained and/or employed by the 16 projects over a three-year period. In FY 1981, there were 267 people providing respite care in the demonstration projects funded that year. In FY 1982, there were 166 people; and in FY 1983, 212 people.

The significance of the figures in Table 5 can be found in the purpose and scope of each project as presented in Appendix A. For example, it can be generalized that projects training and employing the greatest numbers of respite care workers were those serving larger geographic areas (urban and rural) and providing in-home services for families and agencies.

The type of setting in which respite care was provided is another noticeable variance. Group settings (such as St. David's School for Exceptional Children; Northeast Residence, Inc.; and the Developmental Learning Center, Inc.) required fewer staff than an in-home sitter/companion type of service provided by Alternatives for Autistic People/Volunteers of America--Bar-None.

Table 5
Number of Respite Care Providers Trained and/or Employed
by Projects during Fiscal Years 1981 through 1983

RESPITE CARE AGENCY	NUMBER OF RESPITE CARE PROVIDERS TRAINED/EMPLOYED FY 1981	FY 1982	FY 1983[a]
Alternatives for Autistic People, Inc.	25	31	--
Association for Retarded Citizens (ARC)--Duluth	--	14	36
Chisago County Welfare Department	--	18	12
Cook County Social Services	--	--	20
Courage Center/Camp Courage	108[b]	--	--
Developmental Learning Center, Inc.	3	--	--
Developmental Services Organization, Inc.	NA	NA	NA
Isanti County Family Services	--	NA	--
Lakes Homes and Program Development	57	63	58
Northeast Residence, Inc.	4	--	--
Olmsted County Department of Social Services	--	15	15
PLS, Inc.	NA	--	--
Ramsey County Human Services Department	10	--	--
Region 9 Development Commission	45	--	--
Respite Care Program--Northwest Minnesota	15	19	30
St. David's School for Exceptional Children	--	6	6
Volunteers of America--Bar-None	NA	NA	35
TOTAL TRAINED/EMPLOYED	267	166	212

-- Means project was not funded during that year.

NA means "Not Applicable."

[a] Fiscal Year 1983 covers only three quarters (October 1, 1982, through June 30, 1983).

[b] This figure (108) contains some duplicated counts.

D. Variety of Respite Care Options Demonstrated

Services in the home and out of the home were demonstrated by the 16 respite care projects. Several projects had a variety of care options to offer their clients (see Table 6).

Eight projects provided respite care services in the client's own home. Four delivered services in the respite care provider's home and four others made arrangements for care in licensed foster homes and in licensed group homes.

For details about each project, please refer to the "Project Description" section presented in Appendix A.

Table 6
Variety of Respite Care Options Provided by Projects Funded by Minnesota Developmental Disabilities
(Fiscal Years 1981 through 1983)

	LOCATION OR TYPE OF RESPITE CARE SERVICE OFFERED							
RESPITE CARE AGENCY	In Client's Home	Out of Client's Home (e.g., camping)	Provider's Home	Licensed Foster Home	Licensed Group Home	Licensed Day Center	Information and Referral (only)	Community Organization and TA^a
Alternatives for Autistic People, Inc.	✓	✓						
Association for Retarded Citizens (ARC)--Duluth	✓		✓					
Chisago County Welfare Department				✓				
Cook County Social Services	✓		✓					
Courage Center/Camp Courage		✓						
Developmental Learning Center, Inc.						✓		
Developmental Services Organization, Inc.							✓	✓
Isanti County Family Services	✓							
Lakes Homes and Program Development	✓		✓		✓			
Northeast Residence, Inc.					✓			
Olmsted County Department of Social Services	✓			✓				
PLS, Inc.					✓			

Table 6
Variety of Respite Care Options Provided by Projects Funded by Minnesota Developmental Disabilities
(Fiscal Years 1981 through 1983)
(continued)

	LOCATION OR TYPE OF RESPITE CARE SERVICE OFFERED							
RESPITE CARE AGENCY	In Client's Home	Out of Client's Home (e.g., camping)	Provider's Home	Licensed Foster Home	Licensed Group Home	Licensed Day Center	Information and Referral (only)	Community Organization and TA[a]
Ramsey County Human Services Department				✓				
Region 9 Development Commission								✓
Respite Care Program--Northwest Minnesota	✓		✓	✓	✓			
St. David's School for Exceptional Children						✓		
Volunteers of America--Bar-None	✓							
TOTAL	8	2	4	4	4	2	1	2

[a] TA = Technical Assistance.

E. Geographic Distribution of Respite Care Projects

As described earlier, an attempt was made by the Governor's Planning Council on Developmental Disabilities to fund projects throughout the state of Minnesota. Table 7 shows the distribution of respite care projects by economic development region and the number of counties served by these projects.

Out of the 87 counties in Minnesota, almost half (41 counties) were served by the 16 respite care projects. The heaviest concentration of services was located in the southeastern, northwestern, and northeastern parts of the state.

Table 7
Geographic Distribution of Respite Care Demonstration Projects by Region and Number of Counties Served
(Fiscal Years 1981 through 1983)

Region[a]	Number of Counties Served	Respite Care Service Agency
One (Crookston)	7	Respite Care Program--Northwest Minnesota
Two		None
Three (Duluth)	3	Association for Retarded Citizens--Duluth
	1	Cook County Social Services
Four (Detroit Lakes)	9	Lakes Homes and Program Development
Five		None
Six E		None
Six W		None
Seven E	1	Chisago County Welfare Department
	1	Isanti County Family Services
Seven W (St. Cloud)	2	Courage Center/Camp Courage
Eight		None
Nine (Mankato)	9	Region 9 Development Commission
Ten (Rochester)	1	Olmsted County Department of Social Services
Eleven (Mpls.-St. Paul)	7	Alternatives for Autistic People, Inc./ Volunteers of America--Bar-None Courage Center/Camp Courage Developmental Learning Center, Inc. Developmental Services Organization, Inc. Northeast Residence, Inc. PLS, Inc. Ramsey County Human Services Department St. David's School for Exceptional Children
TOTAL NUMBER OF COUNTIES SERVED	41	

---

[a] A map of the Economic Development Regions in Minnesota is provided in Appendix B.

V. DISCUSSION

The provision of temporary relief to families of developmentally disabled persons living at home, known as respite care, was demonstrated in Minnesota as one means of providing support to families. Through the combined financial support of the Minnesota Developmental Disabilities Program and local agencies, respite care services (including information and referral) were provided to a few hundred families who needed these services. The 16 demonstration projects reflected the diversity of needs, situations, and settings necessary for delivering respite care services in urban and rural settings. Most projects brought services to the family home, which the literature supports as being the most commonly preferred setting. Most families served had children below age 21 which may indicate when families experience the greatest times of stress. Although this demonstration effort did not document that the provision of respite care services actually prevented or forestalled placement of developmentally disabled children in more restrictive settings, studies in other states have documented this positive relationship (Cretney, 1982).

The strong possibility of securing a more stable funding base in Minnesota through the Title XIX Medicaid Waiver creates a challenge for all policy making levels to design, develop, and implement a statewide system of family support services of which respite care can be an important part. Human service planners can build upon the experiences gained from the demonstration projects described in this report as well as from the experiences of other states.

At the state level, the first major issue is the definition of "respite care"--what needs respite care can serve and what respite care options might best meet those needs must be answered. State level program designs must allow for local flexibility and autonomy.

Other major steps will be to establish: 1) standards for respite care, 2) methods for monitoring and evaluating (e.g., licensure and/or funding criteria mechanisms), and 3) coordination of respite care services through a case management system.

Guidelines or policies should be developed about training of respite care providers. It should be competency-based and leading toward possible certification or licensing. Rate setting standards must be developed for reasonable cost containment, but consideration must be given the salaries of respite care workers. They should be paid at a level which is respectful of the job demands.

A process for local respite care developers was suggested by Salisbury and Griggs (1983) which included the following phases: (1) information gathering, (2) recruitment, (3) training, (4) coordination of the respite care network, and (5) development of an ongoing support system

(p. 55). However, the most critical consideration was recommended by Holmes:

> As a new type of service moves from an informal basis to one of increased regulation, it is especially vital to demonstrate that there is sufficient demand and utilization of the service. With ample input from the consumer (parents) in the planning process, respite programs will be better utilized. (United Cerebral Palsy Associations, 1981, p. 39)

The challenge ahead for those involved in the growing respite care field was offered by Massachusetts State Senator Chester G. Atkins:

> The respite care movement is a very exciting thing to be a part of. It's an exciting new service that's sprung up really in some very adverse and difficult times . . .. Nevertheless, you have the opportunity to use this to begin a process of building a vision about what social services should be five years from now. Once you have that vision, the political leadership will come along. Once you have that vision, the resources will follow to make that vision a reality. (Massachusetts Developmental Disabilities Council, 1982, p. 5)

VI. REFERENCES

Cretney, L. Respite care and institutionalization. Madison: Division of Communtiy Services, 1982.

Massachusetts Developmental Disabilities Council. Respite care studied in Massachusetts. Boston: Author, 1978.

Salisbury, C. & Griggs, P. A. Developing respite care services for families of handicapped persons. The Journal of the Association for the Severely Handicapped, Spring 1983, 8, 50-57.

United Cerebral Palsy Associations. For this respite, much thanks . . . concepts, guidelines and issues in the development of community respite care services. New York: Author, 1981.

The *Policy Analysis Series* is published by the Minnesota Governor's Planning Council on Developmental Disabilities and the Developmental Disabilities Program, State Planning Agency.

Richard Nelson, M.D., Council Chair--Colleen Wieck, Ph.D., Director.

The purpose of this series is to enhance communication among state and local agencies, service providers, advocates, and consumers on timely issues. We encourage reader participation by giving us feedback on your ideas and perceptions. This paper may be cited:

Developmental Disabilities Program. *Policy Analysis Series Paper No. 21: Summary and Analysis of Minnesota Developmental Disabilities Respite Care Demonstration Projects (Federal Fiscal Years 1981-1983).* St. Paul, MN: Developmental Disabilities Program, State Planning Agency, October, 1983.

APPENDIX A

THE RESPITE CARE DEMONSTRATION PROJECTS

TABLE OF CONTENTS

Respite Care Agency	Page
Alternatives for Autistic People, Inc.	17
Association for Retarded Citizens--Duluth	19
Chisago County Welfare Department	21
Cook County Social Services	23
Courage Center/Camp Courage	25
Developmental Learning Center, Inc.	27
Developmental Services Organization, Inc.	29
Isanti County Family Services	31
Lakes Homes and Program Development	33
Northeast Residence, Inc.	35
Olmsted County Department of Social Services	37
PLS, Inc.	39
Ramsey County Human Services Department	41
Region 9 Development Commission	43
Respite Care Program--Northwest Minnesota	45
St. David's School for Exceptional Children	47
Volunteers of America--Bar-None	49

ALTERNATIVES FOR AUTISTIC PEOPLE, INC.

FAMILY LIVING SUPPORT PROJECT: IN-HOME RESPITE CARE SERVICE FOR AUTISTIC PERSONS

Neil Doughty, Acting Director
Alternatives for Autistic People, Inc.
5624 73rd Avenue, North
Brooklyn Park, Minnesota 55429
(612) 560-5330

Information Requests: Please direct inquiries to:

Volunteers of America--Bar-None
Residential Treatment Services
22426 St. Francis Boulevard
Anoka, Minnesota 55303
(612) 753-2500

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983[a]	Total
Developmental Disabilities grant	$30,784	$28,232	$0	$59,016
Local match	8,500	13,525	0	22,025
TOTAL	$39,284	$41,757	$0	$81,041

[a] The administration of this project was transferred to Volunteers of America--Bar-None which received a developmental disabilities grant in FY 1983, described further under that title in this report.

RESPITE CARE SERVICES PROVIDED

Project Description:

The primary emphasis of this project was to provide in-home respite care by qualified, competent professionals. Families could request services for a few hours, a full day (including overnight), or a weekend. Each family registered with the project was provided a listing of caregivers so that they could negotiate their own respite care arrangements. In addition, other types of services were made available:

- From-the-home respite services, where the caregiver accompanied the disabled person on short trips away from the home, e.g., to do Christmas shopping and attend funerals or weddings.
- Special outings.
- Saturday recreation program.
- August day camp.
- Emergency and crisis service.
- Informal mailings--information about other program activities available in the community.

ALTERNATIVES FOR AUTISTIC PEOPLE, INC.
(continued)

Geographic Area Served:

Region 11: Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties.

Eligibility Requirements:

Children and adults with severe disabilities who resided with their families. Priority was to serve persons with autism or autistic-like behavior.

Fees for Service:

Vouchers for service were purchased for $1.00 per hour for 2 to 8 hours, or $9.00 per day (24 hours).

Number of People Served:

In FY 1981, 92 people were served; in FY 1982, 73 people were served.

Number of Respite Care Providers Trained and/or Employed:

In FY 1981, 25 respite care providers were trained and/or employed; in FY 1982, 31 were trained and/or employed.

Publications/Products:

Project brochure.

Ongoing Status of Project:

This respite care service continues but is now administered by Volunteers of America--Bar-None, described further under that title elsewhere in this report.

ASSOCIATION FOR RETARDED CITIZENS--DULUTH

ARROWHEAD RESPITE CARE PROJECT

Janice Cohen, Executive Director
Association for Retarded Citizens--
Duluth
201 Ordean Building
Duluth, Minnesota 55802
(218) 726-4725

Information Requests: After September 30, 1983, please contact:

Marcia Herman
Nat G. Polinsky Rehabilitation Center
530 East Second Street
Duluth, Minnesota 55802
(218) 727-5083

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$20,000	$23,946	$43,946
Local match	0	8,333	8,000	16,333
TOTAL	$0	$28,333	$31,946	$60,279

RESPITE CARE SERVICES PROVIDED

Project Description:

Intermittent and/or regularly scheduled respite care services were provided to persons with developmental disabilities in their own homes or in the homes of respite care providers. These services were designed to provide relief to families as a break from constant care and supervision of a disabled member and to assist in times of crises and emergencies, or to allow for travel or vacations for the parents.

Part-time coordinators were located in Duluth, Itasca County, the Iron Range, and Carlton County.

A minimum of 8 hours of preservice training was provided for respite care providers.

Information about the project and technical assistance was provided to other parts of the country, e.g., New York, Texas, and North Dakota.

Geographic Area Served:

Duluth; Grand Rapids; Iron Range (Virginia, Eveleth, and Hibbing); and Carlton County.

ASSOCIATION FOR RETARDED CITIZENS--DULUTH
(continued)

Eligibility Requirements:

Children and adults with developmental disabilities living at home. Use of service was limited to 90 days per year and no more than 15 consecutive days at a time.

Fees for Service:

Amount of payment by family was negotiated with the respite care provider in a written agreement. Suggested rates: $2.00 per hour for the first 8 hours; $1.00 per hour for 8 to 24 hours with maximum of $25.00 per 24-hour period.

Number of People Served:

In FY 1982, 25 people were served. During the first three quarters in FY 1983, 16 people were served.

Number of Respite Care Providers Trained and/or Employed:

In FY 1982, 14 respite care providers were trained and/or employed; during the first three quarters in FY 1983, 36 were trained and/or employed.

Publications/Products:

- Slide/tape presentation.
- "Respite Care Manual; Program Operations and Policies" (February, 1982).
- "Training Curriculum for Respite Care Providers."
- Public service announcements for TV and radio.
- "Happenings"--15-minute tape for TV show.

Ongoing Status of Project:

As of October 1, 1983, this respite care project will be transferred to the Nat G. Polinsky Rehabilitation Center. Also, the Junior League of Duluth will be cooperating by providing volunteers, training, and other services. Continuation efforts in Carlton County, Itasca County, and the Iron Range are still in process.

CHISAGO COUNTY WELFARE DEPARTMENT

CHISAGO COUNTY RESPITE CARE PROGRAM

Chisago County Welfare Department
Chisago County Courthouse
Center City, Minnesota 55012

Information Requests: Please direct inquiries to:

Nancy Knowland, Project Director
Chisago County DAC (vendor agency)
Box 410
Chisago City, Minnesota 55013
(612) 257-6709

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$ 5,000	$ 7,500	$12,500
Local match	0	3,772	2,150	5,922
TOTAL	$0	$ 8,772	$ 9,650	$18,422

RESPITE CARE SERVICES PROVIDED

Project Description:

Out-of-home respite care services were provided to developmentally disabled residents of Chisago County. Respite care placements were made in certified respite care homes or licensed foster care homes, where care providers received special training. Both short-term (a few hours) and long-term (for several days) placements could be arranged. Respite care services were used for the following reasons: (1) extended parent vacations; (2) breakaway respite for disabled adults; (3) free time for parents to pursue outside interests (e.g., night school, employment, and expanding social contacts); and (4) temporary transition placement prior to placement in foster homes.

In response to an advertising campaign for recruitment of respite care providers, 56 new applications were received, and 15 new homes were certified.

Geographic Area Served:

Chisago County only.

Eligibility Requirements:

Children and adults with developmental disabilities who reside in their own homes.

CHISAGO COUNTY WELFARE DEPARTMENT
(continued)

Fees for Service:

Sliding fee scale ranging from $1.25 to $25.00 per day. No one is denied service due to inability to pay.

Number of People Served:

In FY 1982, 10 people were served; during the first three quarters in FY 1983, 16 were served.

Number of Respite Care Providers Training and/or Employed:

In FY 1982, 18 respite care providers were trained and/or employed; during the first three quarters in FY 1983, 12 providers were trained and/or employed; a total of 30 respite care workers.

Publication/Products:

- *Respite Care Training Manual* (1982 and 1983, revised).
- Project brochure.
- Fact sheets for providers and parents.

Ongoing Status of Project:

The Chisago County Welfare Department plans to continue this project after the developmental disabilities grant terminates on September 30, 1983. The Chisago County DAC will continue to serve as the vendor agency.

COOK COUNTY SOCIAL SERVICES

RESPITE CARE PROJECT

Thomas Hustvet, Director
Cook County Social Services
Grand Marais, Minnesota 55604
(218) 387-2282

Information Requests: Direct future inquiries to:

Cook County Social Services
Grand Marais, Minnesota 55604
(218) 387-2282

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$0	$ 6,888	$ 6,888
Local match	0	0	2,296	2,296
TOTAL	$0	$0	$ 9,184	$ 9,184

RESPITE CARE SERVICES PROVIDED

Project Description:

This project was newly funded in October, 1982. Respite care was provided in the home where developmentally disabled children and adults lived or in the homes of respite care providers. A part-time coordinator was hired, 20 respite care providers were recruited and trained, and 4 families have utilized these services.

Geographic Area Served:

Cook County.

Eligiblity Requirements:

Children and adults with developmental disabilities who reside in their own homes.

Fees for Service:

Fees were negotiated with the respite care provider. The suggested fee is $2.00 per hour. Low income subsidy is available.

Number of People Served:

Four children and adults were served during the first three quarters in FY 1983 with a total of 525 hours of care provided.

COOK COUNTY SOCIAL SERVICES
(continued)

Number of Respite Care Providers Trained and/or Employed:

Twenty providers were trained in FY 1983 over a nine-month period through March.

Publications/Products:

- Training curriculum (revision in process).
- Project brochure.

Ongoing Status of Project:

The goal is to eventually have this program be self-sufficient after its effectiveness has been demonstrated. Tentative plans are being made to expand the project to include services to elderly, handicapped citizens.

COURAGE CENTER/CAMP COURAGE

WINTER CAMPING ALTERNATIVES

Bob Pollen
Courage Center/Camp Courage
3915 Golden Valley Road
Golden Valley, Minnesota 55422
(612) 588-0811

Information Requests: Requests regarding camping experiences and other services may be directed to:

Courage Center/Camp Courage
3915 Golden Valley Road
Golden Valley, Minnesota 55422
(612) 588-0811

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$23,038	$0	$0	$23,038
Local match	7,679	0	0	7,679
TOTAL	$30,717	$0	$0	$30,717

RESPITE CARE SERVICES PROVIDED

Project Description:

This project made available year-round camping experiences for handicapped children and adults. Nineteen homebound, handicapped adults participated in a week-long winter camping experience at Camp Courage. Two hundred children with handicaps were provided with weekend and overnight camping throughout the year.

Geographic Area Served:

Region 11 (metro) and St. Cloud area.

Eligibility Requirements:

Children and adults with handicaps residing in their own homes.

Fees for Service:

The registration fee was $10.00.

Number of People Served:

A total of 219 children and adults with handicaps were served.

COURAGE CENTER/CAMP COURAGE
(continued)

Number of Respite Care Providers Trained and/or Employed:

Staff members (paid and volunteers) totaling 108 were employed. (This figure includes some duplication of head counts.)

Publications/Products:

None.

Ongoing Status of Project:

Rather than a full week of winter camp, a three-day midweek camp has continued for homebound adults. Full year overnights for children continue. There is extensive use of volunteers.

DEVELOPMENTAL LEARNING CENTER, INC.

RESPITE CARE PROGRAM

James McCaul, Director
of Early Intervention
Developmental Learning Center, Inc.
750 South Plaza Drive
Mendota Heights, Minnesota 55120
(612) 454-2732

Information Requests: Although respite care services have been discontinued, people may contact Developmental Learning Center, Inc., regarding day programs and for other information about Dakota County services.

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$38,920	$0	$0	$38,920
Local match	9,785	0	0	9,785
TOTAL	$48,705	$0	$0	$48,705

RESPITE CARE SERVICES PROVIDED

Project Description:

This was a center-based respite care service that was made available during the day (weekdays) and one evening per week over an eleven-month period. The service was located at Christ Evangelical Lutheran Church in Eagan. Three staff members consisted of one teacher, a teacher assistant, and a child-care assistant. Out of 28 families registered with the program, 20 actually used the service. Services were available on a regularly scheduled basis, or for drop-in and emergency situations.

Geographic Area Served:

Metropolitan area.

Eligibility Requirements:

Developmentally delayed infants and preschool children.

Fees for Service:

Sliding fee schedule with range from $0.25 per hour to $1.75 per hour.

Number of People Served:

Twenty-three families/children were served with a total of 2,523 hours of services provided.

DEVELOPMENTAL LEARNING CENTER, INC.
(continued)

Number of Respite Care Providers Trained and/or Employed:

Three respite care providers were trained and/or employed.

Publications/Products:

- Project brochure.
- Manual for families.
- Priority for emergency service.

Ongoing Status of Project:

Project was terminated upon completion of the grant year.

DEVELOPMENTAL SERVICES ORGANIZATION, INC.

RESPITE CARE SERVICES SYSTEM

Jane W. Birks, Executive Director
Jennifer Otto, Project Staff
Developmental Services Organization, Inc.
666 Pelham Boulevard
St. Paul, Minnesota 55114
(612) 646-1970

Information Requests: Direct inquiries to:

Developmental Services Organization, Inc.
666 Pelham Boulevard
St. Paul, Minnesota 55114
(612) 646-1970

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$43,406	$24,000	$27,000	$ 94,406
Local match	10,852	10,288	11,372	32,512
TOTAL	$54,258	$34,288	$38,372	$126,918

RESPITE CARE SERVICES PROVIDED

Project Description:

The purpose of this grant was to generate a respite care program throughout the metropolitan area. A major part of this system has been to operate an information clearinghouse, connecting people with the particular type of service(s) they need. It provided an in-depth information and referral service regarding respite and residential care as well as responds to other requests for information. An up-to-date computerized inventory of services was maintained, including where there were openings available in respite and residential services. Information was distributed by telephone (with a 24-hour answering service) and computer print-outs were sent to consumers and providers upon request. Developmental Services Organization, Inc., also had an outreach component which was intended to encourage the expansion and improvement of respite care services, e.g., the recruitment of respite care providers. Public relations efforts emphasized greater public awareness about the availability of many types of respite and residential services. The involvement of 50 sitters/companions were also incorporated into the project.

Geographic Area Served:

Region 11: seven-county metropolitan area.

DEVELOPMENTAL SERVICES ORGANIZATION, INC.
(continued)

Eligibility Requirements:

Consumers and providers needing information about respite care services, residential, and other related services available in the metropolitan area.

Fees for Service:

Free.

Number of People Served:

Type of Request	FY 1981	FY 1982	FY 1983 (3 qtrs.)	Total
Special requests	256	612	645	1,513
General requests	326	486	387	1,199
TOTAL	582	1,098	1,032	2,712

Publications/Products:

- Developmental Services Organization, Inc., flyer/ brochure (8,600 distributed in 1981-82).
- Slide presentation.
- Computer print-outs (8,200 distributed in 1981-82).
- Family subsidy information sheet.
- Public service announcements (radio and TV).
- Numerous news releases for local newsletters and newspapers.

Ongoing Status of Projects:

Plans are to continue the service after the developmental disabilities grant terminates on September 30, 1983.

ISANTI COUNTY FAMILY SERVICES

ISANTI COUNTY COMMUNITY SUPPORT PROJECT

Marina Vork
Isanti County Family Services
221 Southwest 2nd Avenue
Cambridge, Minnesota 55008
(612) 689-1711

Information Requests: Direct inquiries to:

Isanti County Family Services
221 Southwest 2nd Avenue
Cambridge, Minnesota 55008
(612) 689-1711

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$17,000	$0	$17,000
Local match	0	5,170	0	5,170
TOTAL	$0	$22,170	$0	$22,170

RESPITE CARE SERVICES PROVIDED

Project Description:

The purpose of the Community Support Project was to encourage developmentally disabled adults to live more independently in their own homes or in apartments by providing periodic training and counseling. Staffing for the project was provided under subcontract with Brighter Day Residence, Mora, Minnesota.

As a result of the project, five people with developmental disabilities improved in the areas of independent living skills and social skills. Thus, there was an indirect reduction of stress on other family members (such as aging parents) as well as placements in more restrictive types of settings were avoided.

Geographic Area Served:

Isanti County (Cambridge area).

Eligibility Requirements:

Adults with developmental disabilities, including chronic mental illness, who needed to improve in the area of independent living.

Fees for Service:

None.

ISANTI COUNTY FAMILY SERVICES
(continued)

Number of People Served:

Five persons with chronic mental illness and/or mental retardation were served.

Number of Respite Care Providers Trained and/or Employed:

Professional staff provided by Brighter Day Residence in Mora, Minnesota.

Publications/Products:

None.

Ongoing Status of Project:

This project was extended through September 30, 1983. Plans are to continue the project after that date.

LAKES HOMES AND PROGRAM DEVELOPMENT

LAKES HOMES RESPITE CARE

Thomas Reifenberger
Lakes Homes and Program Development
P.O. Box 169
Detroit Lakes, Minnesota 56501
(218) 847-7176

Information Requests: Direct inquiries to:

Lakes Homes and Program
Development
P.O. Box 169
Detroit Lakes, Minnesota 56501
(218) 847-7176

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$22,014	$25,999	$22,371	$70,384
Local match	9,966	7,175	7,457	24,598
TOTAL	$31,980	$33,174	$29,828	$94,982

RESPITE CARE SERVICES PROVIDED

Project Description:

Developmental disabilities grant monies were used to expand respite care services that had actually begun in 1977 in Detroit Lakes, Minnesota. This project provided respite care services to persons with developmental disabilities in their own homes, in licensed group homes or in the homes of care providers. Technical assistance was made available to other communities in Region 4 to develop local respite care services, where volunteer respite care coordinators were assigned the areas of: Moorhead (Clay County), Fergus Falls (Otter Tail County), and Alexandria (Douglas County).

In order to acquaint prospective parents in utilizing respite care services, tours were scheduled in group home facilities.

Extensive training was provided for care givers, with an average of one training session each month.

Geographic Area Served:

Region 4: Becker, Clay, Douglas, Otter Tail, Norman, and Polk counties.

Eligibility Requirements:

Children and adults with primary diagnosis of mental retardation and associated physical, sensory, or medical handicaps.

LAKES HOMES AND PROGRAM DEVELOPMENT

(continued)

Fees for Service:

Sliding fee schedule, with subsidization for families through a number of funding sources, e.g., Supplemental Security Income (SSI), Title XX, Cost of Care, Medical Assistance, and the developmental disabilities grant.

Number of People Served:

In FY 1981, 50 people were served; in FY 1982, 66 were served. During the first three quarters in FY 1983, 43 people were served.

Number of Respite Care Providers Trained and/or Employed:

In FY 1981, 57 respite care providers were trained and/or employed; in FY 1982, 63 providers were trained. During the first three quarters of FY 1983, 58 providers were trained and/or employed.

Publications/Products:

- Respite care program brochure.
- *Respite Care Training Manual* (1981, 1982, and 1983).

Ongoing Status of Project:

Alternative funding sources are being sought in order to continue the project after the developmental disabilities grant terminates on September 30, 1983.

NORTHEAST RESIDENCE, INC.

NORTHEAST RESIDENCE RESPITE CARE GROUP HOME

Jane Wells, Director
Northeast Residence, Inc.
104 Bald Eagle Avenue
White Bear Lake, Minnesota 55110
(612) 426-1210

Information Requests: Direct inquiries to:

Northeast Residence, Inc.
104 Bald Eagle Avenue
White Bear Lake, Minnesota 55110
(612) 426-1210

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	\$26,903[a]	\$0	\$0	\$26,903[a]
Local match	69,677	0	0	69,677
TOTAL	\$96,580	\$0	\$0	\$96,580

[a] Only (approximately) half of grant was utilized.

RESPITE CARE SERVICES PROVIDED

Project Description:

A respite care group home was established to house 6 persons with developmental disabilities at any one time, located in White Bear Lake. Families were limited to use the facility for no more than 14 consecutive days and a maximum of 90 days throughout the year. The home was licensed under DPW Rule 34 and certified as an ICF-MR facility (Department of Health).

The developmental disabilities grant was terminated midway in the project year, using only a portion of the grant for start-up costs. The primary reason was that the developmental disabilities grant was determined to count as income under DPW Rule 52, which would result in lowering the ongoing per diem rate for the facility. Nevertheless, the project was successfully launched and operated without the remaining grant from developmental disabilities.

Geographic Area Served:

Region 11: seven-county metropolitan area, plus people from elsewhere in the state of Minnesota.

Eligibility Requirements:

Children and adults with mental retardation who are ambulatory.

NORTHEAST RESIDENCE, INC.
(continued)

Fees for Service:

Sliding fee scale. Subsidies available through county programs and medical assistance.

Number of People Served:

In FY 1981, 33 people were served.

Number of Respite Care Providers Trained and/or Employed:

There are 2 to 4 staff persons on duty at any one time, depending upon the number of clients being served and severity of their disabilities.

Publications/Products:

- Project brochure.
- Slide presentation of respite care.

Ongoing Status of Project:

As of August, 1983, this project was still operating under its original design. Approximately 100 people have been served since it opened in April, 1981, totaling 2,500 hours of service. The facility has operated with a 96% utilization rate and usually has a waiting list for its usage. County and medical assistance continued to support the program financially.

OLMSTED COUNTY DEPARTMENT OF SOCIAL SERVICES

DEMONSTRATION OF RESPITE CARE SERVICES IN OLMSTED COUNTY

Mary Frisvold, Project Director
Margaret Olk, Coordinator
Olmsted County Department
of Social Services
1500 1st Avenue, Northeast
Rochester, Minnesota 55901
(507) 285-8424

Information Requests: Please direct inquiries to:

Olmsted County Department of Social Services
1500 1st Avenue, Northeast
Rochester, Minnesota 55901
(507) 285-8424

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$15,000	$18,750	$33,750
Local match	0	4,977	7,500	12,477
TOTAL	$0	$19,977	$26,250	$46,227

RESPITE CARE SERVICES PROVIDED

Project Description:

This program was designed to provide both in-home respite care and care in foster respite care homes. To date, 15 foster respite care providers, and 4 in-home care providers have been recruited and trained. Training included 15 hours of preservice and 10 hours of in-service. Additional staffing included the use of 2 to 4 nursing student interns who assisted care providers with children in need of intensive care.

Geographic Area Served:

Olmsted County.

Eligibility Requirements:

Children and adults with developmental disabilities who reside in their own homes or in foster homes.

Fees for Service:

Sliding fee (cost-of-care) scale.

OLMSTED COUNTY DEPARTMENT OF SOCIAL SERVICES
(continued)

Number of People Served:

In FY 1982, 17 children and adults were served. In FY 1983, 28 were served.

Number of Respite Care Providers Trained and/or Employed:

Fifteen, plus four nursing student interns. (Coordinator was a half-time position.)

Publications/Products:

Parent orientation film (video tape) was produced to introduce new parents to the program.

Ongoing Status of Project:

The Olmsted County Department of Social Services plans to continue this project after September 30, 1983, when the developmental disabilities grant terminates.

PLS, INC.

RESPITE CARE PROGRAM

Michael J. Sarafolean, Project Director
PLS, Inc.
1394 Jackson Street
St. Paul, Minnesota 55117
(612) 488-0275

Information Requests: Respite care services have been discontinued.

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$20,900	$0	$0	$20,900
Local match	71,100	0	0	71,100
TOTAL	$92,000	$0	$0	$92,000

RESPITE CARE SERVICES PROVIDED

Project Description:

This project was designed to provide both in-home and out-of-home respite care for adults with developmental disabilities. This project had difficulty early in its development in that the additional local revenues anticipated did not materialize. Therefore, only a minimum amount of services were delivered.

Geographic Area Served:

Region 11: seven-county metropolitan area.

Eligibility Requirements:

Adults (ages 18 and over) with developmental disabilities. Men and women who are ambulatory, toilet trained, and possess at least some degree of self-help and personal hygiene skills.

Fees for Service:

This information was not provided.

Number of People Served:

Sixteen units of service were provided.

Number of Respite Care Providers Trained and/or Employed:

This information was not provided.

PLS, INC.
(continued)

Publications/Products:

Project brochure.

Ongoing Status of Project:

Discontinued at the end of the project year.

RAMSEY COUNTY COMMUNITY SERVICES DEPARTMENT

RESPITE CARE IN RAMSEY COUNTY

Kathy Thorson
Jan Wulff
Ramsey County Community Services
Department, Foster Care Services
160 East Kellogg Boulevard
St. Paul, Minnesota 55101
(612) 298-4697

Information Requests: People interested in providing respite care or receiving these services should contact Earle Hobbs, Ramsey County Community Services Department at (612) 298-4381.

FUNDING

Type of Funding	FY 1981[a]	FY 1982	FY 1983	Total
Developmental Disabilities grant	$ 35,000	$0	$0	$35,000
Local match	11,667	0	0	11,667
TOTAL	$ 46,667	$0	$0	$46,667

[a] Project was extended over an 18-month period.

RESPITE CARE SERVICES PROVIDED

Project Description:

The purpose of this project was to prevent foster and natural parent "burn out" by establishing 10 professional respite care foster homes. These homes were paid on a year-round basis regardless of whether or not they were filled. Providers received 12 hours of orientation and training and were issued a state license. Monthly support group meetings were made available to the 10 respite care providers.

Geographic Area Served:

Ramsey County.

Eligibility Requirements:

Children with developmental disabilities who resided in foster homes or were living with natural parents.

Fees for Service:

None.

Number of People Served:

Respite care services were provided to 66 children from 58 natural and foster families.

RAMSEY COUNTY COMMUNITY SERVICES DEPARTMENT
(continued)

Number of Respite Care Providers Trained and/or Employed:

Ten licensed respite care homes.

Publications/Products:

- Project brochure.
- Slide/tape presentation.

Ongoing Status of Project:

This project was incorporated into the ongoing foster care program.

REGION 9 DEVELOPMENT COMMISSION

DEMONSTRATION OF RESPITE CARE SERVICES IN REGION 9

Terry Stone, Director
Region 9 Development Commission
P.O. Box 3367
Mankato, Minnesota 56001
(507) 387-5643

Information Requests: This project has been discontinued. Questions regarding respite care services should be directed to the county social service agency in your area.

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$25,756	$0	$0	$25,756
Local match	8,619	0	0	8,619
TOTAL	$34,375	$0	$0	$34,375

RESPITE CARE SERVICES PROVIDED

Project Description:

This project provided a community organization approach to assist local groups to plan and implement respite care services in their respective communities. Training curriculums were developed, and seven training sessions were held for 45 respite care providers from a four-county area. A model respite care program was developed for communities to use as a guide.

Geographic Area Served:

Region 9 (southcentral Minnesota).

Eligibility Requirements:

Not applicable.

Fees for Service:

Not applicable.

Number of People Served:

Not applicable.

Number of Respite Care Providers Trained and/or Employed:

Forty-five respite care providers were trained.

REGION 9 DEVELOPMENT COMMISSION
(continued)

Publications/Products:

- Respite care brochure.
- *Handle with Care: Respite Care Training* (Manual), 1981.
- *Handbook for Behavior Management* (1981).
- Respite care *Bibliography.*
- County resource lists.

Ongoing Status of Project:

Project was terminated upon completion of the grant year. However, local programs continue to function, such as in Waseca, New Ulm, and Mankato.

RESPITE CARE PROGRAM--NORTHWEST MINNESOTA

RESPITE CARE PROGRAM

Leslie Fox, Director
Respite Care Program--Northwest Minnesota
P.O. Box 663
Crookston, Minnesota 56716
(218) 281-5905

Information Requests: Direct inquiries to:

Respite Care Program, Inc.
P.O. Box 663
Crookston, Minnesota 56716
(218) 281-5905

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$22,107	$25,000	$27,000	$ 74,107
Local match	7,764	12,360	9,000	29,124
TOTAL	$29,871	$37,360	$36,000	$103,231

RESPITE CARE SERVICES PROVIDED

Project Description:

Short-term, temporary relief care was made available through this project for families with children and adults with developmental disabilities. On the most part, respite care services were provided in the person's own home to allow other family members to: (1) meet emergency needs; (2) fulfill vacation plans; and (3) obtain routine reprieve. Short-term, out-of-home respite care placements were also available on a limited basis in the homes of the respite care providers. Families who were registered with the program were given a list of providers in their area, and respite care arrangements were negotiated directly with the care provider. Usage of service was limited to 360 hours per year. Project staff provided technical assistance in Region 1 in order to establish similar respite care services for elderly, disabled persons.

Geographic Area Served:

Region 1: Kittson, Roseau, Marshall, Pennington, Red Lake, Polk, and Norman counties.

Eligibility Requirements:

Developmentally disabled children and adults living in their own homes.

RESPITE CARE PROGRAM--NORTHWEST MINNESOTA
(continued)

Fees for Service:

Sliding fee scale with $1.25 per hour maximum limit.

Number of People Served:

A total of 45 families registered with this project. In FY 1981, 11 people were served; in FY 1982, the number increased to 15. During the first three quarters in FY 1983, 20 people were served.

Number of Respite Care Providers Trained and/or Employed:

A total of 57 respite care providers were trained and available for services. In FY 1981, 15 care providers were trained; in FY 1982, 19 were trained. During the first three quarters in FY 1983, 30 providers were trained.

Publications/Products:

- Program brochure.
- Training curriculum manual.
- Slide presentation.
- Recruiting poster.

Ongoing Status of Project:

Alternative funding sources are being sought in order to continue the project after the developmental disabilities grant terminates September 30, 1983. Through the combined efforts of this project and agencies serving the elderly population, staff was successful in establishing respite care for elderly, disabled persons as a regional priority, which will open the door for possible funding under the Older Americans Act for that population.

ST. DAVID'S SCHOOL FOR EXCEPTIONAL CHILDREN

ST. DAVID'S RESPITE DAY CARE PROGRAM

Eric Stevens, Agency Director
Marilyn Bloom, Project Director
St. David's School for Exceptional Children
13000 St. David's Road
Minnetonka, Minnesota 55343
(612) 935-3336

Information Requests: Direct inquiries to:

St. David's School for Exceptional Children
13000 St. David's Road
Minnetonka, Minnesota 55343
(612) 935-3336

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$15,000	$14,000	$29,000
Local match	0	20,678	8,000	28,678
TOTAL	$0	$35,678	$22,000	$57,678

RESPITE CARE SERVICES PROVIDED

Project Description:

Licensed, center-based respite day care was provided on a regularly scheduled basis, such as one day per week, every day, or on a drop-in basis, with one to two day's notice. The purpose was not only to provide some free time for parents but also to provider after school care and care during times of family emergencies or crisis. All-day respite care was also provided during the summer and school holidays. which was particularly valuable for children of school age. Many respite care clients have had the opportunity of interacting with non-handicapped children who are enrolled in the regular day care program at the center.

A part-time outreach worker was hired to encourage better service utilization.

A recent needs assessment conducted in surrounding communities in west Hennepin County revealed a need for respite care during evenings and weekends. The Project Advisory Committee discussed the possibility of providing services to meet these needs.

Geographic Area Served:

Western Hennepin County.

ST. DAVID'S SCHOOL FOR EXCEPTIONAL CHILDREN
(continued)

Eligibility Requirements:

Children with special needs residing in their own homes, ages 6 months to 7 years.

Fees for Service:

No one is denied service because of inability to pay. Sliding fee scale--average fee is $1.60 per hour, with a range from $6.75 to $33.75 per week and $29.00 to $135.00 per month. Rates were lowered during the summer months.

Number of People Served:

In FY 1982, 37 people were served; during the first three quarters in FY 1983, 25 were served.

Number of Respite Care Providers Trained and/or Employed:

In FY 1982, 4 to 6 respite care providers were employed; during the first three quarters in FY 1983, 4 to 6 providers have been employed.

Publications/Products:

- Slide presentation.
- Program brochure.
- Public service announcements (KSTP-TV).
- Photo album on program development (scope and function.
- Needs assessment survey report.
- Outreach summary report.
- Newsletter and local newspaper coverage.

Ongoing Status of Project:

Alternative funding sources are being sought in order to continue the project after developmental disabilities grant terminates on September 30, 1983.

VOLUNTEERS OF AMERICA--BAR-NONE

IN-HOME RESPITE CARE FOR FAMILIES WITH AUTISTIC OR AUTISTIC-LIKE FAMILY MEMBERS

Verlyn R. Wenndt
Volunteers of America--Bar-None
Residential Treatment Services
22426 St. Francis Boulevard
Anoka, Minnesota 55303
(612) 753-2500

Information Requests: Direct inquiries to:

Volunteers of America--Bar-None
Residential Treatment Services
22426 St. Francis Boulevard
Anoka, Minnesota 55303
(612) 753-2500

FUNDING

Type of Funding	FY 1981	FY 1982	FY 1983	Total
Developmental Disabilities grant	$0	$0	$26,520	$26,520
Local match	0	0	5,479	5,479
TOTAL	$0	$0	$31,999	$31,999

RESPITE CARE SERVICES PROVIDED

Project Description:

This project was administeratively transferred from Alternatives for Autistic People, Inc. Therefore, it is a continuation of the project described previously in this report.

Professional caregivers traveled to the family home to provide respite care. Registered families were granted a set number of hours per quarter for use throughout the year. Arrangements were made directly with the care providers who were listed with the agency. A report form and evaluation is submitted by the family to the project coordinator after each use of the service. Approximately 50 families were registered with this project during the past year.

Geographic Area Served:

Region 11: Anoka, Carver, Dakota, Hennepin, Ramsey, and Washington counties.

Eligibility Requirements:

Children and adults who reside with their families and are handicapped due to autism or have autistic-like characteristics.

VOLUNTEERS OF AMERICA--BAR-NONE
(continued)

Fees for Service:

Fees were approximately $1.50 per hour.

Number of People Served:

In FY 1983 (during the first three quarters only), 49 children and adults were served.

Number of Respite Care Providers Trained and/or Employed:

In FY 1983 (during the first three quarters only), 35 providers were trained and/or employed.

Publications/Products:

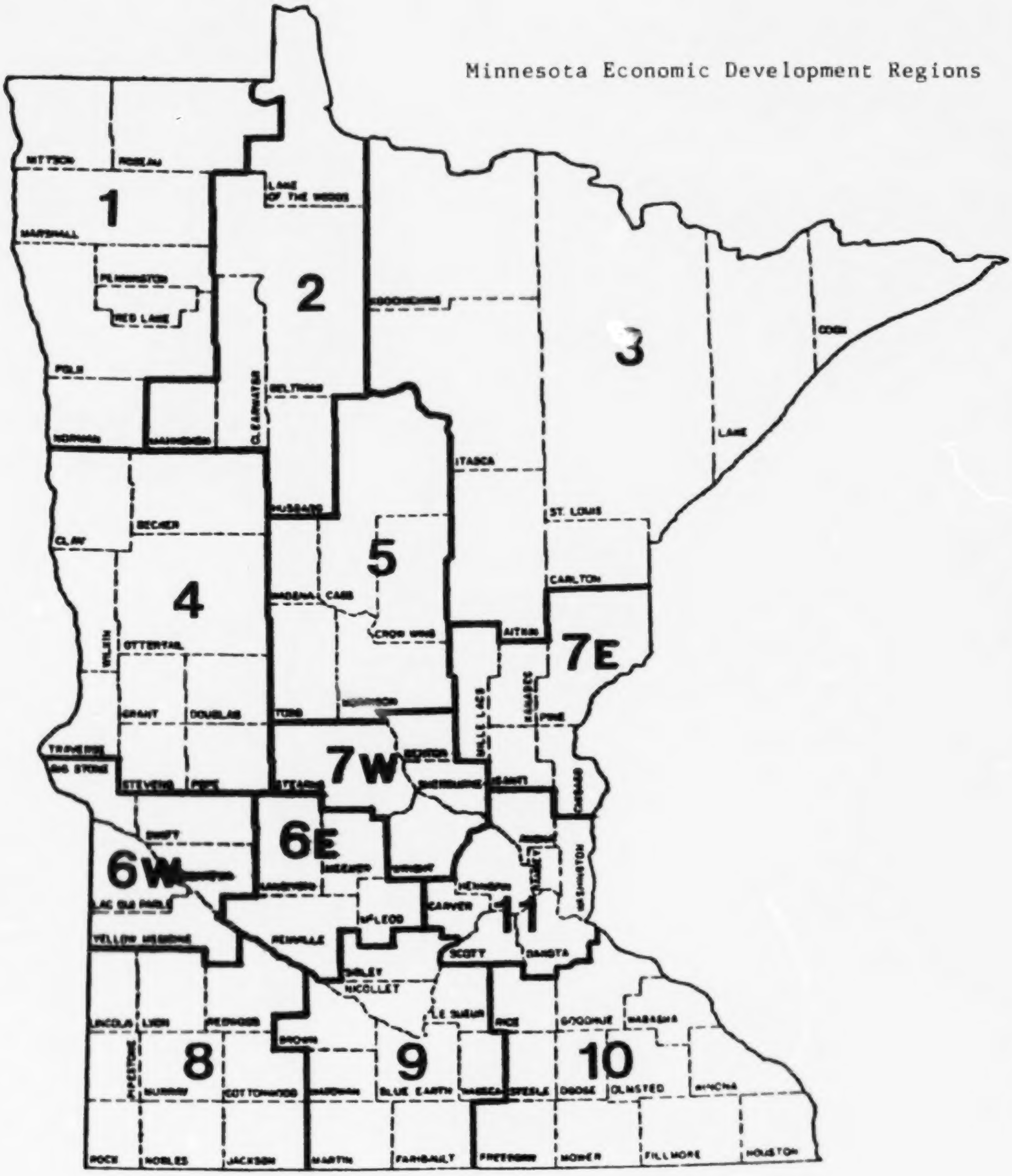
Project brochure (in process).

Ongoing Status of Project:

Alternative funding sources are being sought in order to continue the project after the developmental disabilities grant terminates on September 30, 1983.

APPENDIX B

Minnesota Economic Development Regions


1
2
3
4
5
6E
6W
7E
7W
8
9
10
11
KITTSON
ROSEAU
LAKE OF THE WOODS
MARSHALL
PENNINGTON
RED LAKE
POLK
NORMAN
MAHNOMEN
CLEARWATER
BELTRAMI
KOOCHICHING
ITASCA
ST. LOUIS
LAKE
COOK
CARLTON
HUBBARD
CLAY
BECKER
WADENA
CASS
CROW WING
AITKIN
WILKIN
OTTERTAIL
GRANT
DOUGLAS
TODD
MORRISON
MILLE LACS
KANABEC
PINE
TRAVERSE
BIG STONE
STEVENS
POPE
STEARNS
BENTON
SHERBURNE
ISANTI
CHISAGO
SWIFT
KANDIYOHI
CHIPPEWA
MEEKER
WRIGHT
ANOKA
RAMSEY
WASHINGTON
HENNEPIN
LAC QUI PARLE
CARVER
McLEOD
YELLOW MEDICINE
RENVILLE
SCOTT
DAKOTA
SIBLEY
NICOLLET
LE SUEUR
LINCOLN
LYON
REDWOOD
RICE
GOODHUE
WABASHA
BROWN
PIPESTONE
MURRAY
COTTONWOOD
WATONWAN
BLUE EARTH
WASECA
STEELE
DODGE
OLMSTED
WINONA
ROCK
NOBLES
JACKSON
MARTIN
FARIBAULT
FREEBORN
MOWER
FILLMORE
HOUSTON